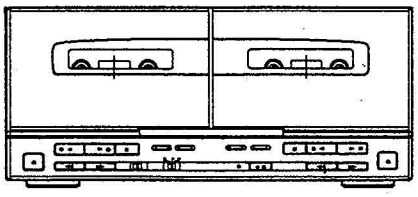
PIONEER®
The Art of Entertainment

Service Manual



ORDER NO.
ARP2143

STEREO DOUBLE CASSETTE DECK

CT-P710WR
CT-P410WR

MODEL CT–P710WR AND CT–P410WR HAVE FOLLOWING VERSIONS:

Type	Applicable Model		Power Requirement	Remarks
	CT–P710WR	CT–P410WR		
ZUC	–	○	(DC power supply)	
ZEBM	–	○	(DC power supply)	
ZUCEBM	○	–	(DC power supply)	

- **This manual is applicable to the CT–P710WR/ZUCEBM, CT–P410WR/ZUC and ZEBM types.**
- **Each of these products does not function properly when independent; to avoid malfunctions; be sure to connect it to the prescribed system component (s), otherwise damage may result.**
- **As to the CT–P410WR/ZUC and ZEBM types, refer to pages 31–35.**
- **Ce manuel pour le service comprend les explications de réglage en français.**
- **Este manual de servicio trata del método ajuste escrito en español.**

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1. EXPLODED VIEWS AND PARTS LIST

1.1 EXTERIOR

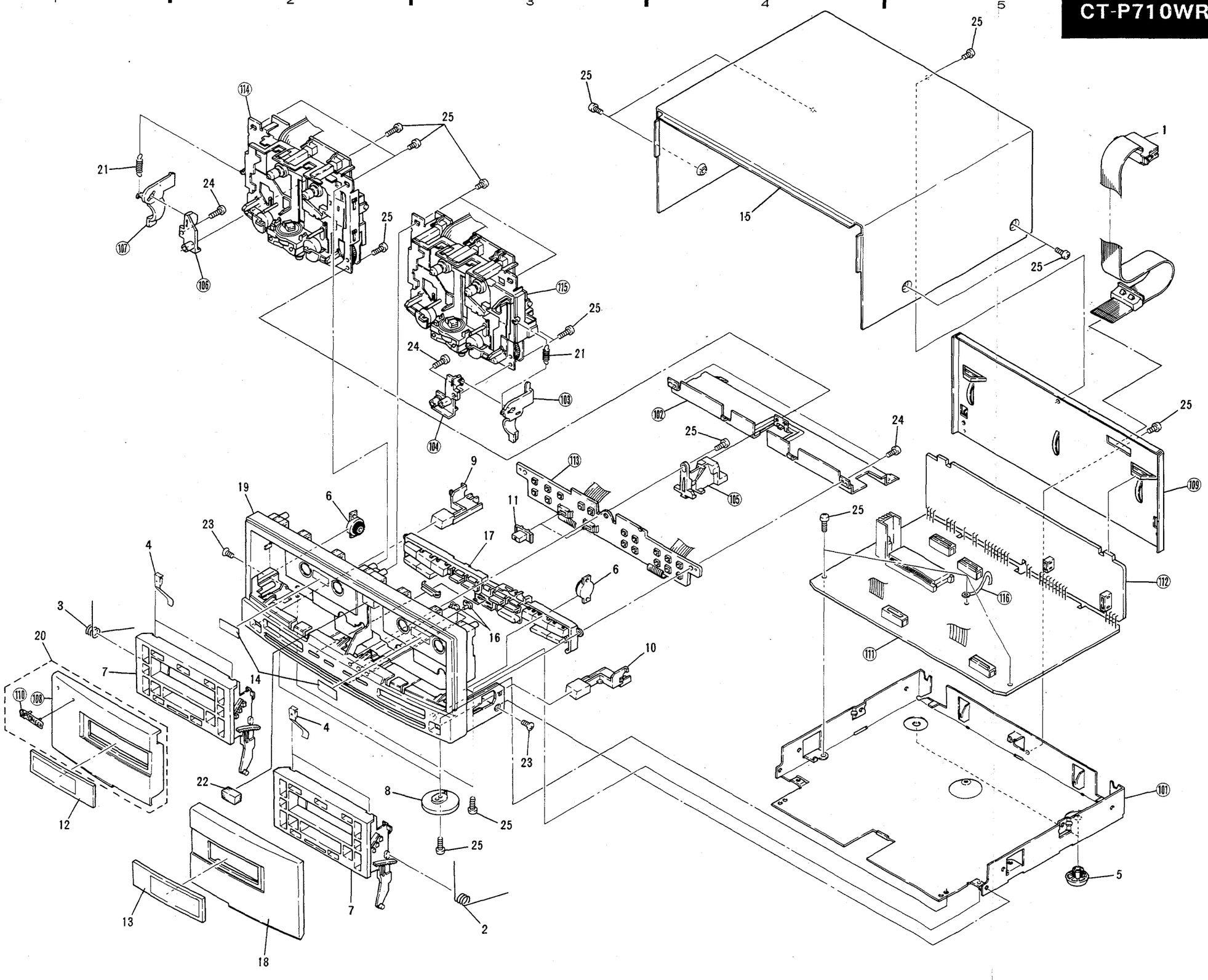
NOTES:

- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Parts List of Exterior

Mark	No.	Part No.	Description
	1	RKP1375	Connector assembly 15P (Red) *1
	2	RBH1248	Door spring (R)
	3	RBH1251	Door spring (L)
	4	RBK1004	Half pressure spring
	5	REC – 434	Leg assembly
	6	REC1005	Damper assembly
	7	RNK1587	Door pocket
	8	RXA1344	Insulator assembly
	9	RAC1528	Eject knob (L) *1
	10	RAC1529	Eject knob (R) *1
	11	RAC1527	Slide knob *1
	12	RAH1727	Door lens (L)
	13	RAH1728	Door lens (R)
	14	REE – 113	Remain display paper
	15	RNA1359	Bonnet
	16	RNK1591	Indicator lens
	17	RXA1358	Operation button assembly *1
	18		Door panel (R) *1
	19		Front panel *1
	20		Door panel (L) assembly *1
	21	RBH1265	Eject spring
	22	REB1148	Cushion
	23	CBZ30P080FZK	Screw
	24	BBZ30P100FMC	Screw
	25	BBZ30P080FZK	Screw
	101		Main chassis
	102		Mechanism shield plate
	103		Eject arm
	104		Eject holder
	105		Center bracket
	106		Eject holder (L)
	107		Eject arm (L)
	108		Door panel (L)
	109		Rear panel
	110		Name plate
	111		Main unit
	112		Rear unit
	113		Operate unit
	114		Mechanism unit I
	115		Mechanism unit II
	116		Cord clamper

*1 is used for CT – P710WR only.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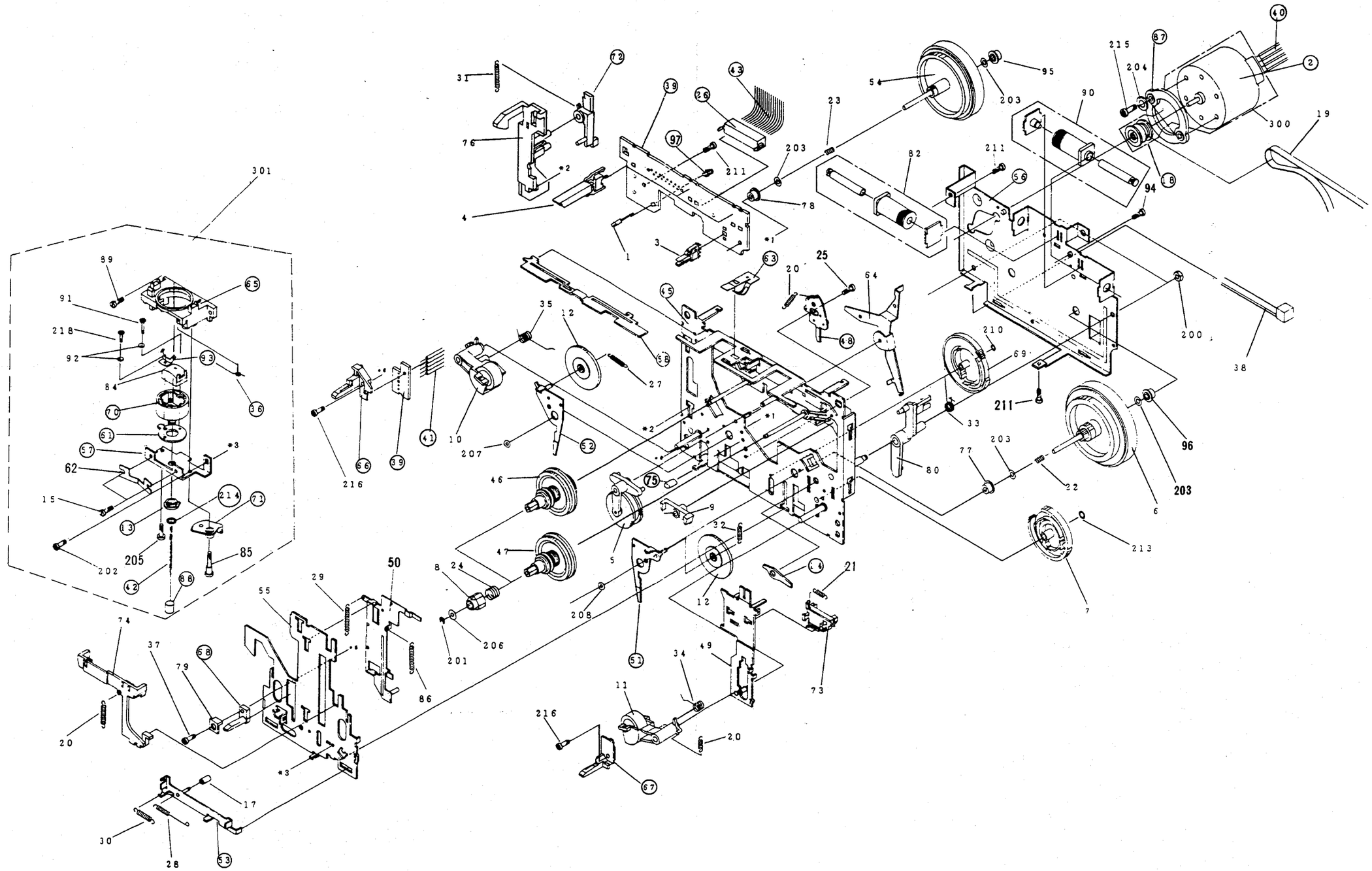
1.2 MECHANISM UNIT (DECK I)



Parts List of Mechanism Unit I

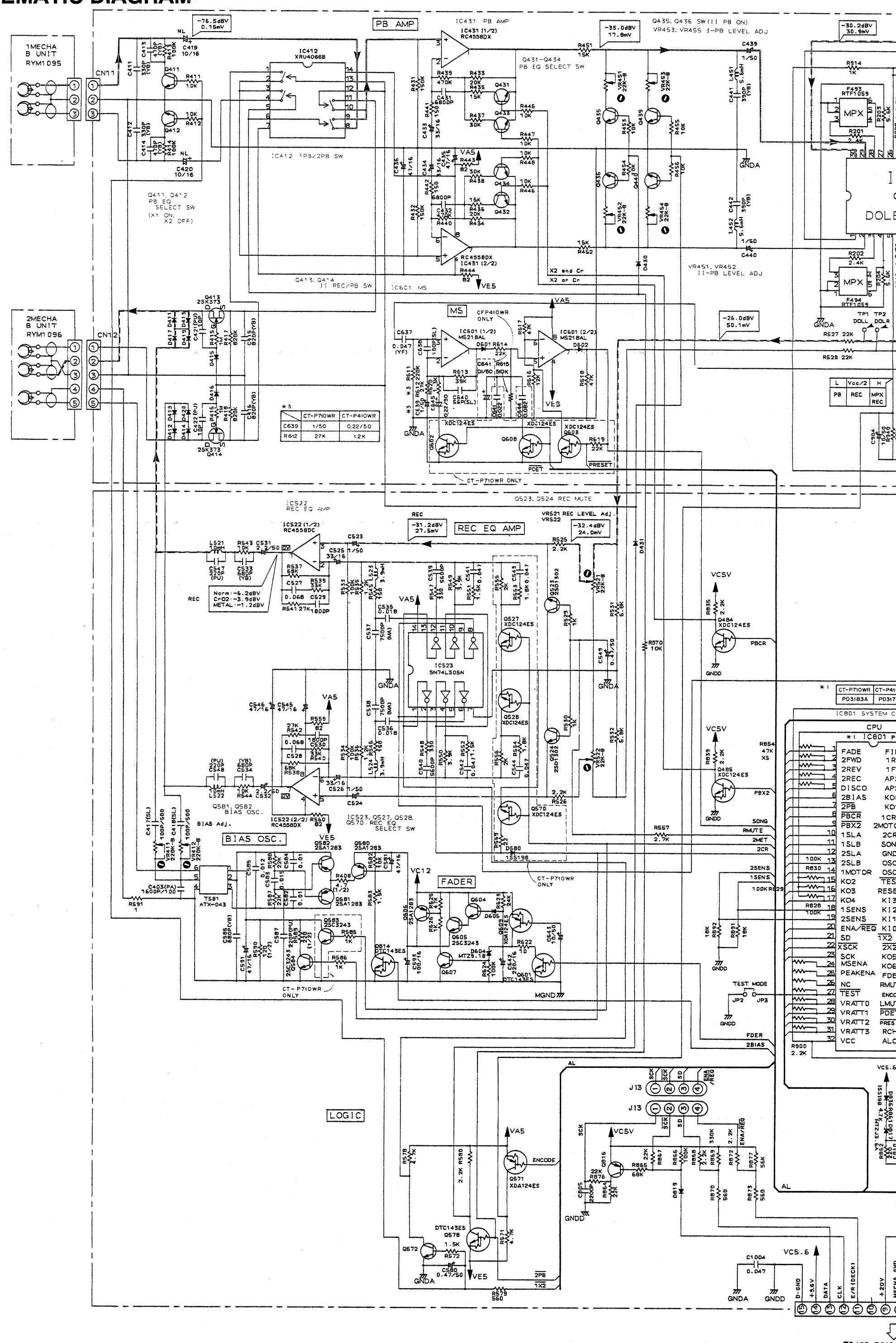
Mark	No.	Part No.	Description
	1	DN6851A	Hall IC
	2		Motor
	3	RSN1018	Leaf switch
	4	RSN1019	Leaf switch
	5	RXA1067	Drive arm assembly
	6	RXA1332	FW assembly A
	7	RNK1111	Cam gear
	8	RNK1112	Reel claw
	9	RNK1608	FR arm
	10	RXA1333	Pinch roller L assembly
	11	RXA1334	Pinch roller R assembly
	12	RNK1114	Gear
	13		H gear
	14		Cue arm
	15	RBA1023	Azimuth screw
	16		.....
	17	RNK1609	Collar
	18		Motor pulley
	19	REB1013	Flat belt
	20	RBH1074	Tension spring
	21	RBH1058	FR lever spring
	22	RBH1060	FWF spring
	23	RBH1061	FWR spring
	24	RBH1062	Pressure spring
	25	RBA1033	Step screw
	26		Cable holder
	27	RBH1063	Tension spring
	28	RBH1064	Tension spring
	29	RBH1065	Tension spring
	30	RBH1066	Tension spring
	31	RBH1257	Tension spring
	32	RBH1258	Tension coil spring
	33	RBH1068	Spring
	34	RBH1069	Spring
	35	RBH1070	Spring
	36		Spring
	37	RBA1024	Step screw
	38	REC – 371	Nylon band
	39		PC board
	40		Jumper wire
	41		Head lead wire
	42		Lead wire
	43		Wire
	44		.....
	45		Mechanism board caulking assembly
	46	RXA1073	R reel assembly
	47	RXA1335	F reel assembly
	48		Reverse arm caulking assembly
	49	RXA1336	FR lever assembly
	50	RXA1337	PLAY lever caulking assembly
	51		Gear arm R
	52		Gear arm L
	53		Head lever caulking assembly
	54	RXA1338	FW assembly
	55	RNE1065	Head board
	56		Flywheel receiving plate
	57		Azimuth plate
	58		Switch arm
	59		.....
	60		.....
	61		Head arm
	62	RBK1006	Azimuth spring
	63		Cassette stopper
	64	RNK1612	Trigger arm
	65		Head frame
	66		Cassette guide L
	67		Cassette guide R
	68		Cassette guide
	69	RNK1120	Cam gear
	70		Head holder
	71		Head gear
	72		Eject arm 2
	73	RNK1123	Select lever
	74	RNK1124	Brake
	75		Tube
	76	RNK1585	Latch lever L
	77	RNG1004	Metal
	78	RNG1005	Metal
	79	REB1014	Cushion
	80	RNK1125	Trigger arm
	81		.....
	82	RXP1011	Solenoid
	83		.....
	84	RPB1036	P head
	85	RBA1030	Step screw
	86	RBH1072	Tension spring
	87		Spacer
	88		Sumi tube
	89	RBA1034	Step screw
	90	RXP1012	Solenoid
	91	RBA1026	Screw
	92	RBE1002	Screw washer
	93		Head spring
	94	RBA1083	Screw
	95	RNK1615	Holder capstan
	96	RNK1616	Holder capstan
	97		Holder
	200	NA30FZK	Hexagonal nut
	201	YE15FUC	E ring
	202	PCZ20P060FMC	D screw
	203	WA26D047D025	P washer
	204	RBF1035	N washer
	205	RBA1027	U bind screw
	206	RBF1004	P washer
	207	RBF1005	Oil cut
	208	RBF1036	Washer
	209		.....
	210	RBF1008	P washer
	211	PCZ20P040FMC	D screw
	212		.....
	213	RBF1011	P washer
	214		M washer
	215	RBA1028	P screw
	216	RBA1029	D bind screw
	217		.....
	218	RBA1084	P screw
	300	RXM1042	Motor assembly
	301	RXA1339	Head frame assembly

1.3 MECHANISM UNIT (DECK II)

Parts List of Mechanism Unit II

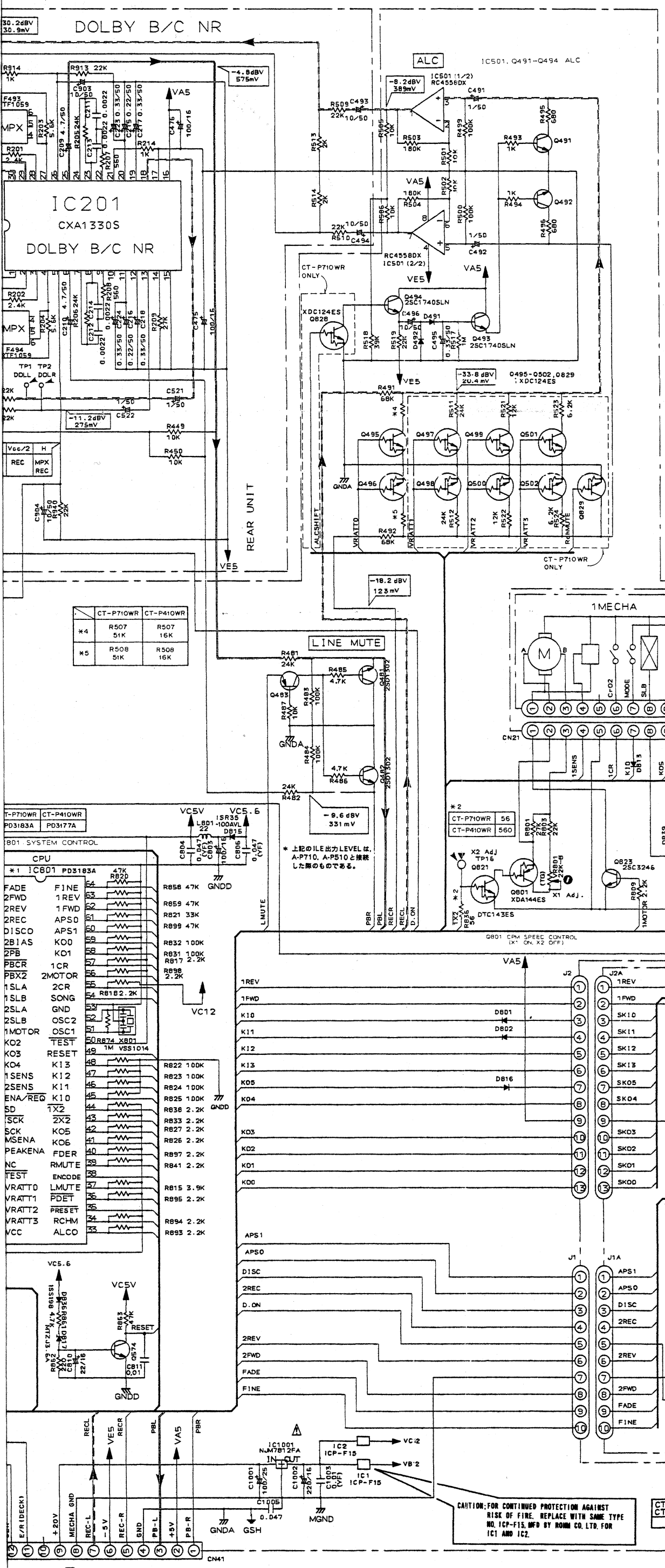
Mark	No.	Part No.	Description
	1	DN6851A	Hall IC
	2		Motor
	3	RSN1018	Leaf switch
	4	RSN1019	Leaf switch (ARF, HALF, METAL, CrO_2, ARR)
	5	RXA1067	Drive arm assembly
	6	RXA1332	FW assembly A
	7	RNK1111	Cam gear
	8	RNK1112	Reel claw
	9	RNK1608	FR arm
	10	RXA1333	Pinch roller L assembly
	11	RXA1334	Pinch roller R assembly
	12	RNK1114	Gear
	13		H gear
	14		Cue arm
	15	RBA1023	Azimuth screw
	16		.....
	17	RNK1609	Collar
	18		Motor pulley
	19	REB1013	Flat belt
	20	RBH1074	Tension spring
	21	RBH1058	FR lever spring
	22	RBH1060	FWF spring
	23	RBH1061	FWR spring
	24	RBH1062	Pressure spring
	25	RBA1033	Step screw
	26		Cable holder
	27	RBH1063	Tension spring
	28	RBH1064	Tension spring
	29	RBH1065	Tension spring
	30	RBH1066	Tension spring
	31	RBH1257	Tension spring
	32	RBH1258	Tension spring
	33	RBH1068	Spring
	34	RBH1069	Spring
	35	RBH1070	Spring
	36		Spring
	37	RBA1024	Step screw
	38	REC – 371	Nylon band
	39		PC board
	40		Jumper wire
	41		Head lead wire
	42		Lead wire
	43		Wire
	44		Jumper wire (D)
	45		Mechanism board caulking assembly
	46	RXA1073	R reel assembly
	47	RXA1335	F reel assembly
	48		Reverse arm caulking assembly
	49	RXA1336	FR lever assembly
	50	RXA1337	PLAY lever caulking assembly
	51		Gear arm R
	52		Gear arm L
	53		Head lever caulking assembly
	54	RXA1338	FW assembly
	55	RNE1065	Head board
	56		Flywheel receiving plate
	57		Azimuth plate
	58		Switch arm
	59		Eject arm (L)
	60		Eject arm (R)
	61		Head arm
	62	RBK1006	Azimuth spring
	63		Cassette stopper
	64	RNK1612	Trigger arm
	65		Head frame
	66		Cassette guide L
	67		Cassette guide R
	68		Cassette guide
	69	RNK1120	Cam gear
	70		Head holder
	71		Head gear
	72		Eject arm 2
	73	RNK1123	Select lever
	74	RNK1124	Brake
	75		Tube
	76	RNK1586	Latch lever R
	77	RNG1004	Metal
	78	RNG1005	Metal
	79	REB1014	Cushion
	80	RNK1125	Trigger arm
	81		.....
	82	RXP1011	Solenoid
	83		.....
	84	RPB1037	R/P/E head
	85	RBA1030	Step screw
	86	RBH1072	Tension spring
	87		Spacer
	88		Sumi tube
	89	RBA1034	Step screw
	90	RXP1012	Solenoid
	91	RBA1026	Screw
	92	RBE1002	Screw washer
	93		.....
	94	RBA1083	Screw
	95	RNK1615	Holder capstan
	96	RNK1616	Holder capstan
	97		Eject lever (L)
	99		Holder
	200	NA30FZK	Hexagonal nut
	201	YE15FUC	E ring
	202	PCZ20P060FMC	D screw
	203	WA26D047D025	P washer
	204	RBF1035	N washer
	205	RBA1027	U bind screw
	206	RBF1004	P washer
	207	RBF1005	Oil cut
	208	RBF1036	Washer
	209		.....
	210	RBF1008	P washer
	211	PCZ20P040FMC	D screw
	212		.....
	213	RBF1011	P washer
	214		M washer
	215	RBA1028	P screw
	216	RBA1029	D bind screw
	217	RBA1085	Screw
	300	RXM1042	Motor assembly
	301	RXA1340	Head frame assembly

2. SCHEMATIC DIAGRAM



*3	CT-P710WR	CT-P410WR
C639	1/50	0.22/50
R612	27K	1.2K

*1	CT-P710WR	CT-P410WR
	PD3183A	PD3177



1. RESISTORS :
Indicated in Ω, 1/4W, 1/6W, ±5% tolerance unless otherwise noted k ; kΩ, M ; MΩ, (F) ; ±1%, (G) ; ±2%, (K) ; ±10%, (M) ; ±20% tolerance.

2. CAPACITORS :
Indicated in capacity (μ F) /voltage (V) unless otherwise noted p ; pF.
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE CURRENT :
; DC voltage (V) at play state.
mA ; DC current at play state.
Value in ( ) is DC current at stop state.

4. OTHERS :
➡ : Signal route.
⊘ : Adjusting point.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistors have parts numbers.

5. SWITCHES (Underline indicates switch position)

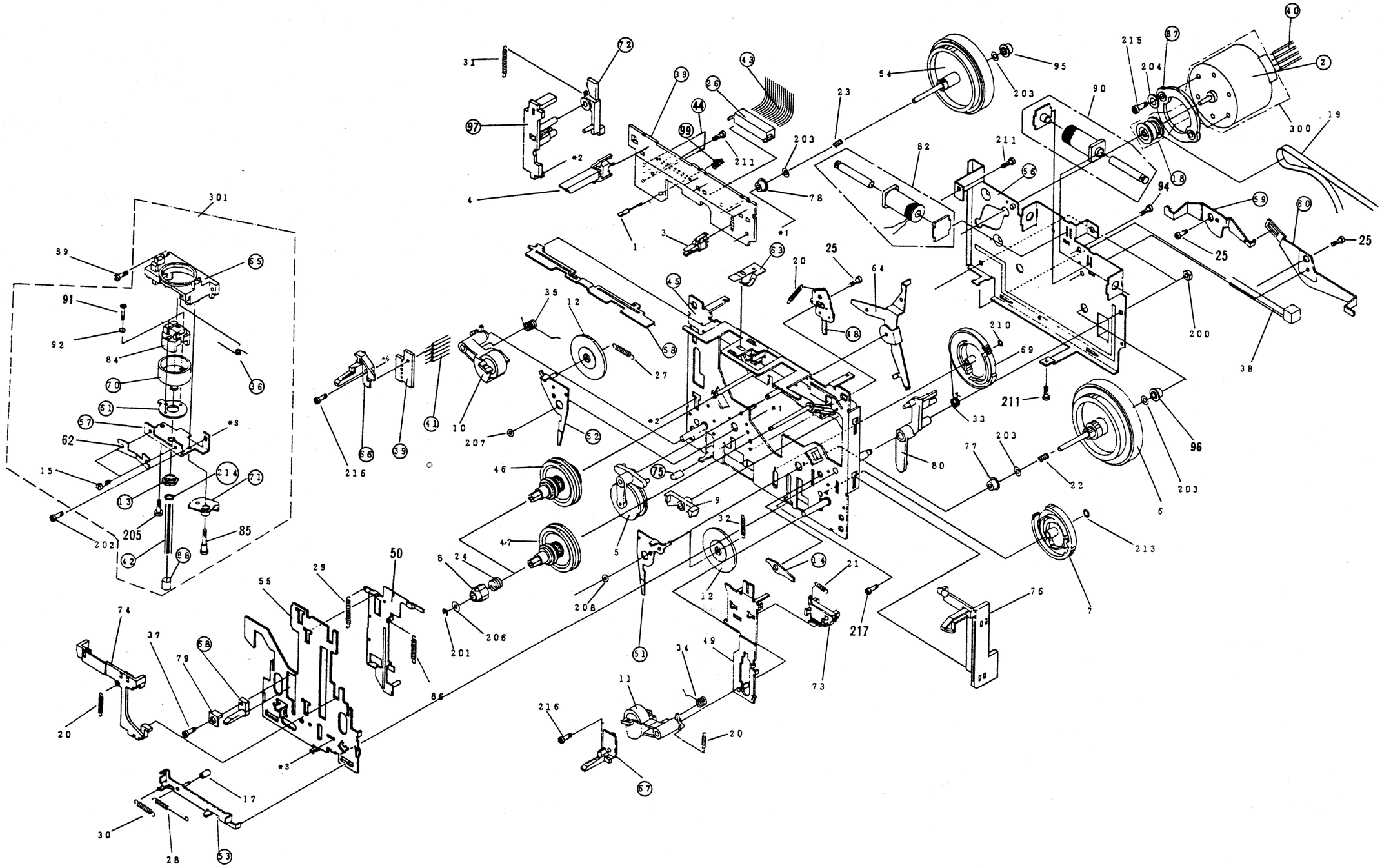
S811	1WD
S812	REV
S813	1FF
S814	REW
S815	STOP
S821	2FWD
S822	REV
S823	2FF
S824	REW
S825	STOP
S849	REV MODE
S850	DOLBY B-OFF-C
S853	COPY
S857	FADE/FINE
S859	REC
S862	X2COPY
S865	DISCO
S866	ASPS

	CT-P710WR	CT-P410WR
※4	R507 51K	R507 16K
※5	R508 51K	R508 16K

※2	
CT-P710WR	56
CT-P410WR	560

CT-P710WR/ZUCEBM CT-P410WR/ZUC	CT-P410WR/ZEBM
IC1, IC2	JP

CAUTION; FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE WITH SAME TYPE NO. ICP-F15, MFD BY ROHM CO. LTD. FOR IC1 AND IC2.



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REMOVAL OF MECHANISM UNIT WHEN MECHANICALLY LOCKED

1. Remove five screws and remove the bonnet.
2. From back side of the unit, turn the flywheel in the direction of arrow Ⓐ with small–size slotted screwdriver. (Fig. 1.)
3. After the head chassis is set down, push the EJECT knob on the front panel to open the door. (Fig. 2.)
4. Remove four screws ① from back side and remove the mechanical unit. (Fig. 3.)

(It is possible to remove the mechanical unit in above procedure when either deck I or deck II is mechanically locked.)

Fig. 1

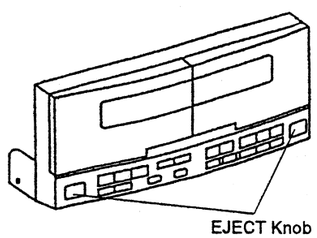
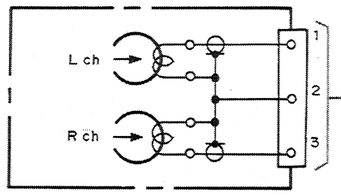


Fig. 2

Fig. 3

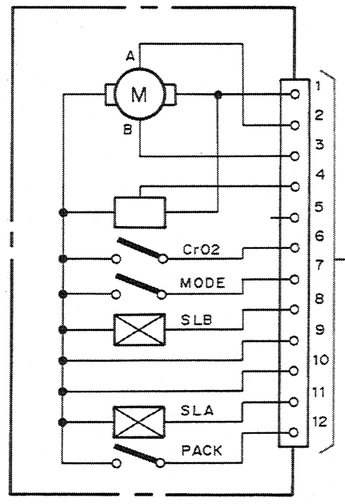
3. P.C. BOARDS CONNECTION DIAGRAM

1 MACHA B UNIT



TO GR-P510
SP-P710

1 MACHA UNIT



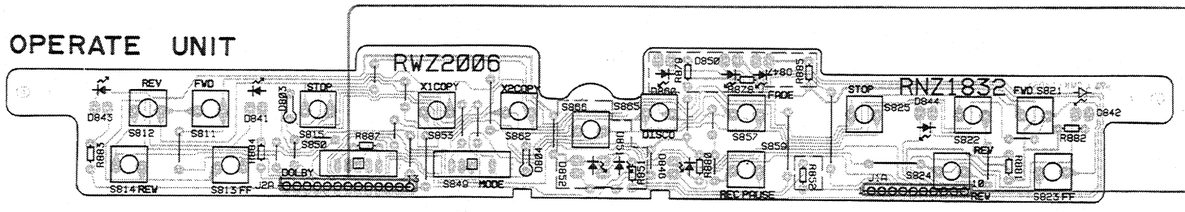
NOTE :

: CT-P710WR ONLY

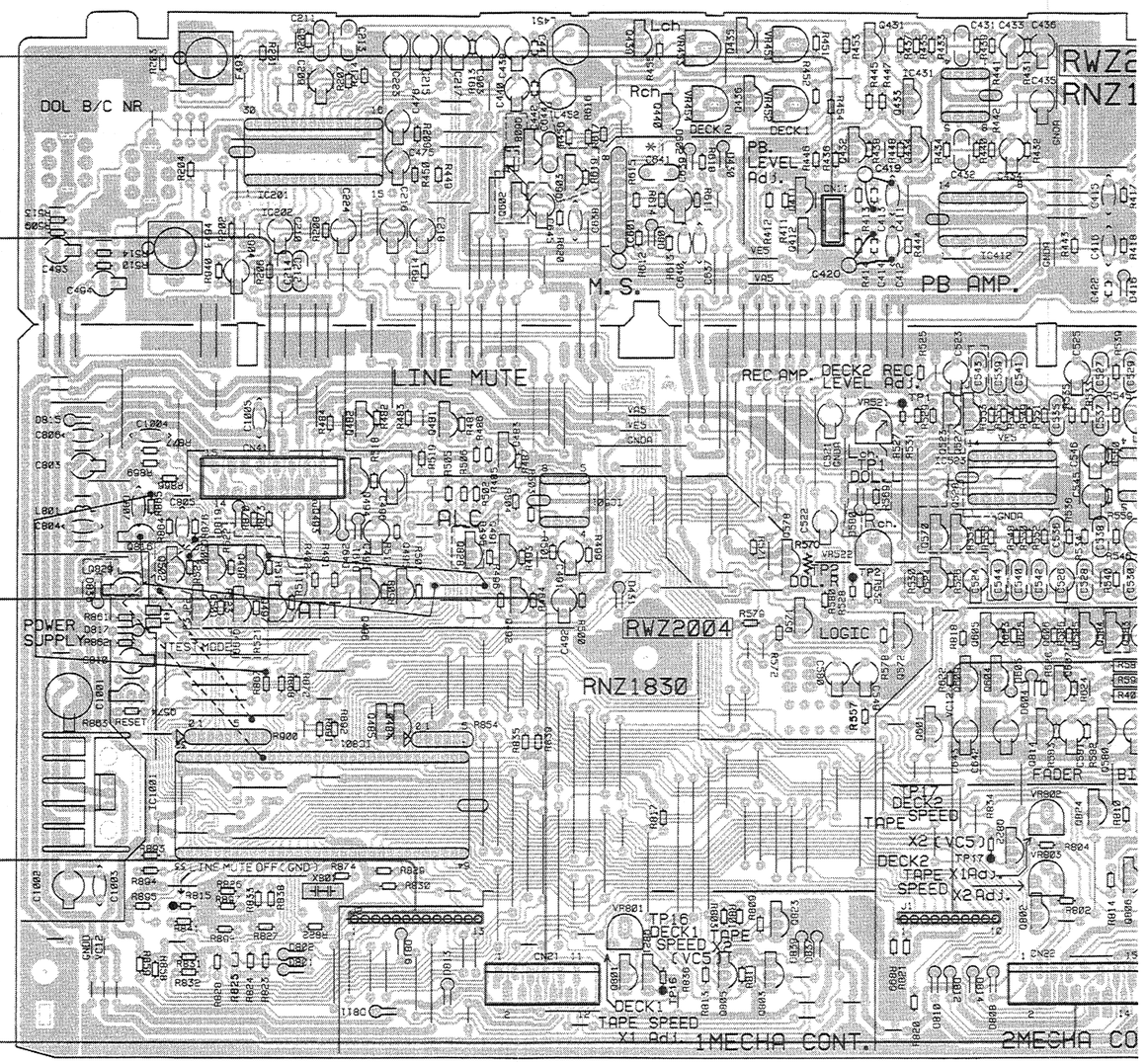
* 1

	C641
CT-P710WR	
CT-P410WR	

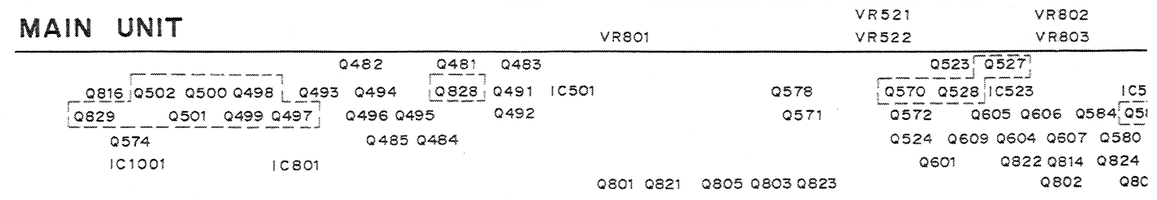
OPERATE UNIT



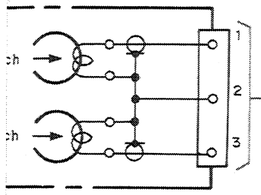
REAR UNIT



MAIN UNIT

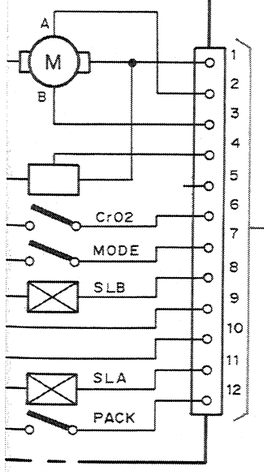


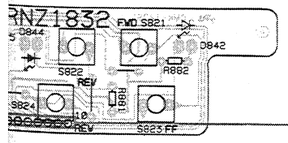
CHA B UNIT



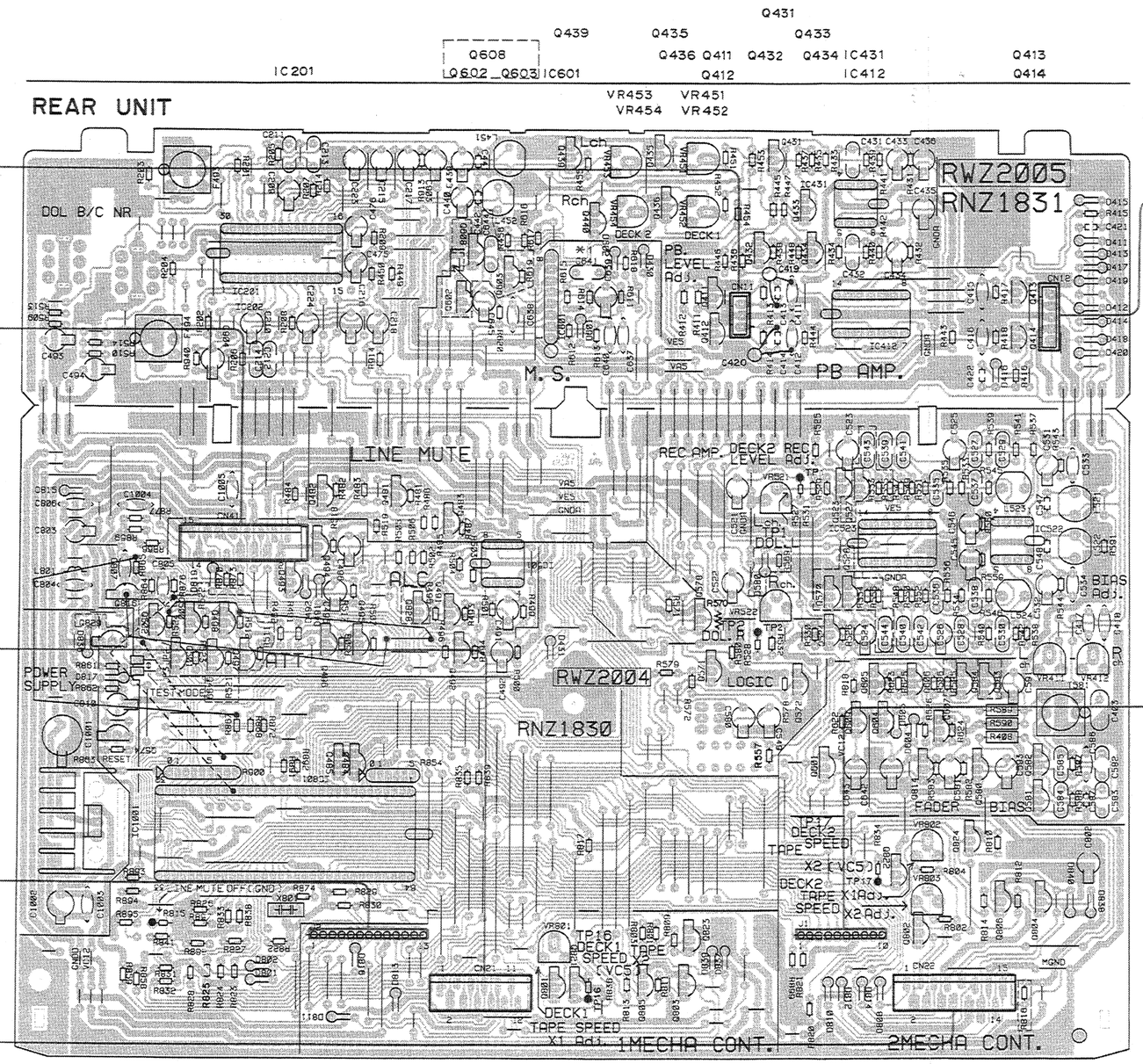
TO GR-P510
SP-P710

CHA UNIT

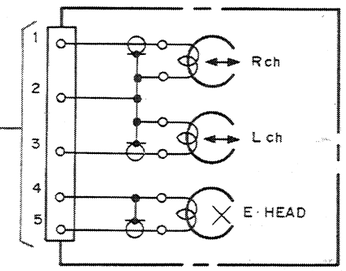




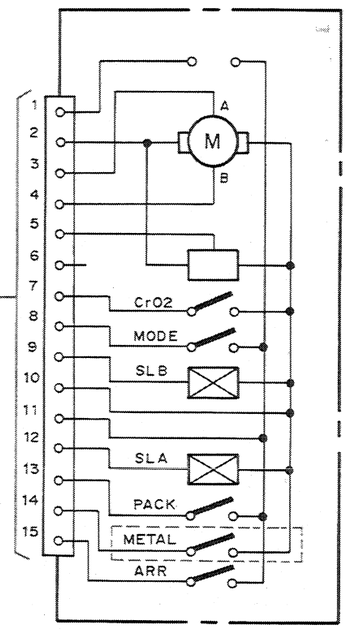
REAR UNIT



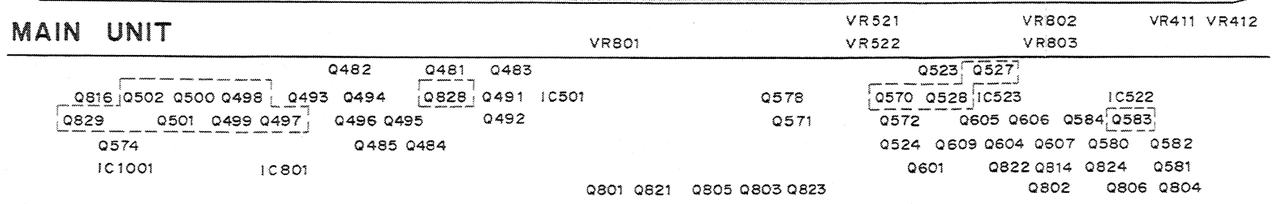
2 MACHA B UNIT



2 MACHA UNIT

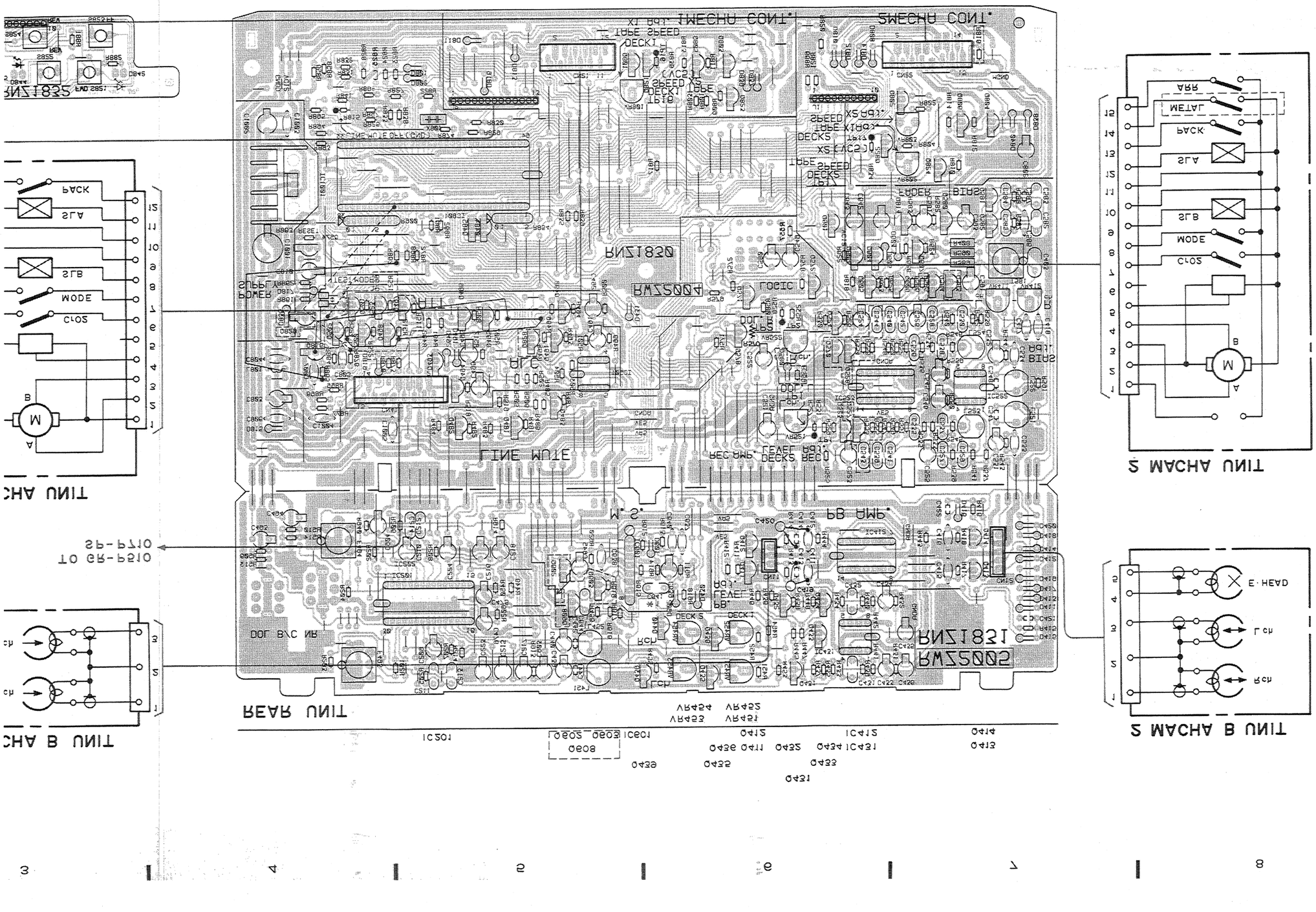


MAIN UNIT



P.C.B. pattern diagram indication	Corresponding part symbol	Part name
		Transistor
		FET
		Diode
		Zenner diode
		LED
		Varactor
		Tact switch
		Inductor
		Coil
		Transformer
		Filter
		Ceramic capacitor
		Mylar capacitor
		Styrol capacitor
		Electrolytic capacitor (Non polarized)
		Electrolytic capacitor (Noiseless)
		Electrolytic capacitor (Polarized)
		Electrolytic capacitor (Polarized)
		Power capacitor
		Semi-fixed resistor
		Resistor array
		Resistor
		Resonator
		Thermistor

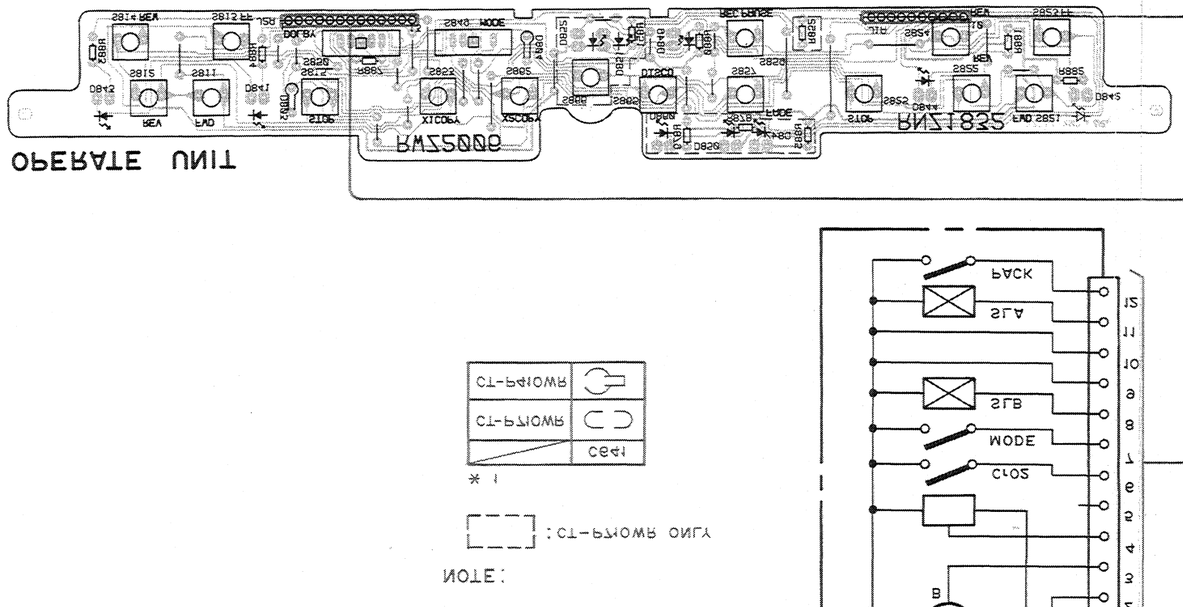
1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above Table.
3. The capacitor terminal marked with ▭ shows negative terminal.
4. The diode marked with ○ shows cathode side.
5. The transistor terminal marked with ▭ shows emitter.

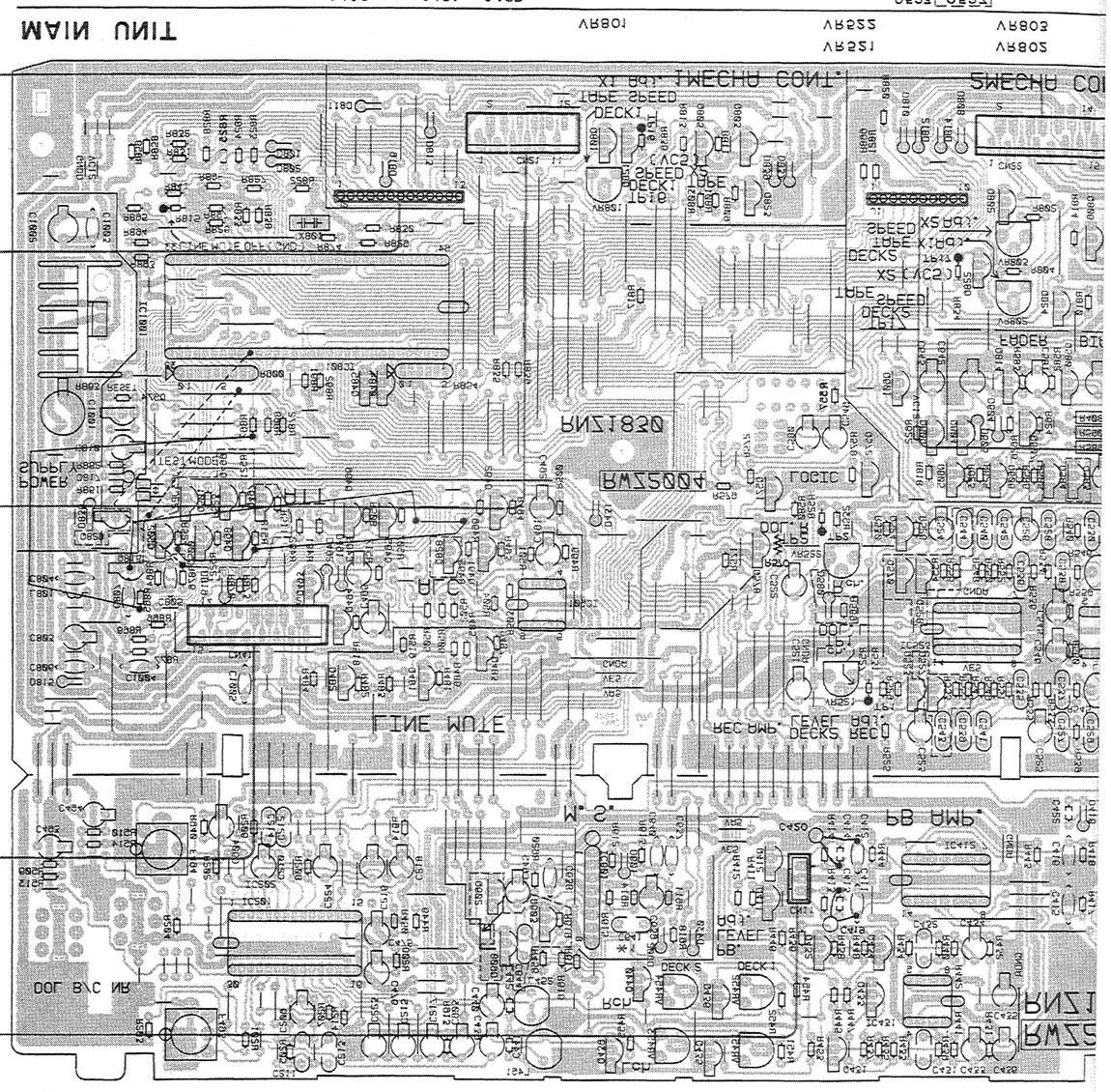


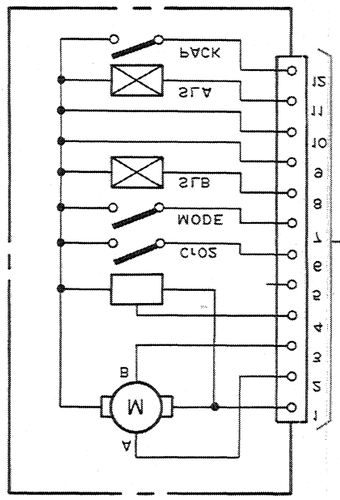
CT-P710WR, CT-P410WR

3. P.C. BOARDS CONNECTION DIAGRAM

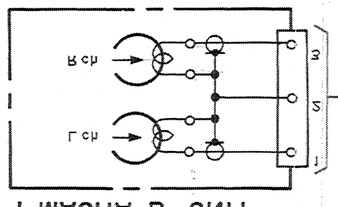
This P.C.B. connection diagram is viewed from the foil side.







TO CR-P210



CT-P2101W	
CT-P2101W	
CT-P2101W	

* 1

: CT-P2101W ONLY

NOTE:

4. P.C.B's PARTS LIST

NOTES:

- Parts without part number cannot be supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%)

560 Ω → 56 × 10^1 → 561 ····· RD1/4PS 5 6 1 J
47k Ω → 47 × 10^3 → 473 ····· RD1/4PS 4 7 3 J
0.5 Ω → 0R5 ····· RN2H 0 R 5 K
1 Ω → 010 ····· RS1P 0 1 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 × 10^1 → 5621 ····· RN1/4SR 5 6 2 1 F

Mark	No.	Symbol & Description	Part No.
MAIN UNIT			
SEMICONDUCTORS			
	IC1, 2		ICP-F15
	IC501	OP-AMP IC	RC4558DX
	IC522	OP-AMP IC	RC4558DX
	IC523	LOGIC IC	SN74LS05N
	IC801	CPU	PD3183A
⚠	IC1001	REGULATOR IC	NJM7812FA
	Q481, 482	TRANSISTOR	2SD1302
	Q483	TRANSISTOR	2SA1309A
	Q484, 485	DIGITAL TRANSISTOR	XDC124ES
	Q491, 492	TRANSISTOR	2SC3311A
	Q495-502	DIGITAL TRANSISTOR	XDC124ES
	Q493, 494	TRANSISTOR	2SC1740SLN
	Q523, 524	TRANSISTOR	2SD1302
	Q527, 528	DIGITAL TRANSISTOR	XDC124ES
	Q570	DIGITAL TRANSISTOR	XDC124ES
	Q571	DIGITAL TRANSISTOR	XDA124ES
	Q572	TRANSISTOR	2SC3311A
	Q574	TRANSISTOR	2SC3311A
	Q578	TRANSISTOR	DTC143ES
	Q580-582	TRANSISTOR	2SA1283
	Q583, 584	TRANSISTOR	2SC3243
	Q601	TRANSISTOR	DTC143ES
	Q604	TRANSISTOR	2SC3311A
	Q605	TRANSISTOR	2SC3243
	Q606	TRANSISTOR	2SA1283
	Q607	TRANSISTOR	2SC3311A
	Q609	DIGITAL TRANSISTOR	XDA124ES
	Q801, 802	DIGITAL TRANSISTOR	XDA144ES
	Q803-806	TRANSISTOR	2SC3246
	Q814	TRANSISTOR	DTC143ES
	Q816	TRANSISTOR	2SA1309A
	Q821, 822	TRANSISTOR	DTC143ES
	Q823, 824	TRANSISTOR	2SC3246
	Q828, 829	DIGITAL TRANSISTOR	XDC124ES
	D431	DIODE	1SS254
	D491, 492	DIODE	1SS254
	D580	DIODE	1SS198
	D604	DIODE	MTZ9.1B
	D605	DIODE	1SS254
	D801, 802	DIODE	1SS254
	D808	DIODE	1SS254
	D810-814	DIODE	1SS254
	D815	DIODE	1SR35-100AVL
	D816	DIODE	1SS254
	D817	ZENER DIODE	MTZJ3.6A
	D819	DIODE	1SS254
	D836	DIODE	1SS198
	D837-840	DIODE	1SS254
COILS/TRANSFORMERS			
	L521, 522	COIL 10MH	RTF1102
	L523, 524	COIL 3.9MH	RTF1020
	L801	AXIAL INDUCTOR	LAU220K
	T581		ATX-043
CAPACITORS			
	C403	PP CAPACITOR	CQPA162J100
	C417, 418	CERAMIC CAPACITOR	CCCSL101K500
	C491, 492	ELECTR. CAPACITOR	CEAS010M50
	C495	ELECTR. CAPACITOR	CEASR33M50
	C496	ELECTR. CAPACITOR	CEAS100M50
	C523, 524	ELECTR. CAPACITOR	CEAS010M50
	C525, 526	ELECTR. CAPACITOR	CEAS330M16
	C527, 528	AUDIO FILM CAPACITOR	CFTXA683J50
	C529, 530	AUDIO FILM CAPACITOR	CFTXA182J50
	C531, 532	ELECTR. CAPACITOR	CEAS2R2M50
	C533, 534	CERAMIC CAPACITOR	CKCYB681K50
	C535, 536	AUDIO FILM CAPACITOR	CFTXA183J50
	C537, 538	MYLOR CAPACITOR	CQMA752J50
	C539, 540	AUDIO FILM CAPACITOR	CFTXA562J50
	C541-544	AUDIO FILM CAPACITOR	CFTXA473J50
	C545, 546	ELECTR. CAPACITOR	CEAS470M16
	C549	ELECTR. CAPACITOR	CEAS47M50
	C547, 548	AXIAL CERAMIC CAPACITOR	CKPUYB221K50
	C580	ELECTR. CAPACITOR	CEASR47M50

Mark	No.	Symbol & Description	Part No.
	C581	ELECTR. CAPACITOR	CEAS470M16
	C582	AUDIO FILM CAPACITOR	CFTXA103J50
	C583	AUDIO FILM CAPACITOR	CFTXA153J50
	C584	AUDIO FILM CAPACITOR	CFTXA103J50
	C585	AUDIO FILM CAPACITOR	CFTXA123J50
	C586	CERAMIC CAPACITOR	CKCYB681K50
	C587	AXIAL CERAMIC CAPACITOR	CKPUYB221K50
	C591	ELECTR. CAPACITOR	CEAS470M16
	C593	ELECTR. CAPACITOR	CEAS101M16
	C642	ELECTR. CAPACITOR	CEAS221M16
	C643	ELECTR. CAPACITOR	CEAS100M50
	C802, 803	ELECTR. CAPACITOR	CEAS101M16
	C804	CERAMIC CAPACITOR	CKCYF473Z50
	C805	CERAMIC CAPACITOR	CKCYB222K50
	C806	CERAMIC CAPACITOR	CKCYF473Z50
	C810	ELECTR. CAPACITOR	CEAS220M16
	C811	CERAMIC CAPACITOR	CKCYF103Z50
	C1001	ELECTR. CAPACITOR	CEAS101M25
	C1002	ELECTR. CAPACITOR	CEAS221M16
	C1003	CERAMIC CAPACITOR	CKCYF103Z50
	C1004, 1005	CERAMIC CAPACITOR	CKCYF473Z50
RESISTORS			
	R408	CARBON FILM RESISTOR 4.7	RCN1022
	R481-487	CARBON FILM RESISTOR	RD1/6PM□□□J
	R491-496	CARBON FILM RESISTOR	RD1/6PM□□□J
	R499, 500	CARBON FILM RESISTOR	RD1/6PM□□□J
	R501-508	CARBON FILM RESISTOR	RD1/6PM□□□J
	R511, 512	CARBON FILM RESISTOR	RD1/6PM□□□J
	R517-519	CARBON FILM RESISTOR	RD1/6PM□□□J
	R525, 526	CARBON FILM RESISTOR	RD1/6PM□□□J
	R529-557	CARBON FILM RESISTOR	RD1/6PM□□□J
	R559, 560	CARBON FILM RESISTOR	RD1/6PM□□□J
	R569	CARBON FILM RESISTOR	RD1/6PM□□□J
	R570-572	CARBON FILM RESISTOR	RD1/6PM□□□J
	R578-580	CARBON FILM RESISTOR	RD1/6PM□□□J
	R582, 583	CARBON FILM RESISTOR	RD1/6PM□□□J
	R585-588	CARBON FILM RESISTOR	RD1/6PM□□□J
	R589	CARBON FILM RESISTOR(120Ω)	RCN1021
	R590	CARBON FILM RESISTOR(220Ω)	RCN1020
	R591	CARBON FILM RESISTOR	RD1/6PM□□□J
	R622-626	CARBON FILM RESISTOR	RD1/6PM□□□J
	R801-804	CARBON FILM RESISTOR	RD1/6PM□□□J
	R809-814	CARBON FILM RESISTOR	RD1/6PM□□□J
	R815,834	CARBON FILM RESISTOR(3.9k)	RCN1019
	R816-818	CARBON FILM RESISTOR	RD1/6PM□□□J
	R820-833	CARBON FILM RESISTOR	RD1/6PM□□□J
	R834	CARBON FILM RESISTOR(3.9k/6W)	RCN1019
	R835	CARBON FILM RESISTOR	RD1/6PM□□□J
	R836	CARBON FILM RESISTOR(56/6W)	RCN1029
	R838, 839	CARBON FILM RESISTOR	RD1/6PM□□□J
	R841	CARBON FILM RESISTOR	RD1/6PM□□□J
	R854	RESISTOR ARRAY	RA5T473J
	R858, 859	CARBON FILM RESISTOR	RD1/6PM□□□J
	R861-870	CARBON FILM RESISTOR	RD1/6PM□□□J
	R872-874	CARBON FILM RESISTOR	RD1/6PM□□□J
	R876, 877	CARBON FILM RESISTOR	RD1/6PM□□□J
	R891-895	CARBON FILM RESISTOR	RD1/6PM□□□J
	R897-899	CARBON FILM RESISTOR	RD1/6PM□□□J
	R900	RESISTOR ARRAY	RA8T222J
	VR411, 412	(220k)(TB)	RCP1049
	VR521, 522	(22k)(TB)	RCP1046
	VR801, 802		VRTG6VS223
	VR803	(10k)(TS)	RCP1054
OTHER			
	X801	CERAMIC OSCILLATOR	VSS1014

REAR UNIT

Mark	No.	Symbol & Description	Part No.
SEMICONDUCTORS			
	IC201	DOLBY B/C IC	CXA1330S
	IC412	LOGIC IC	XRU4066B
	IC431	OP-AMP IC	RC4558DX
	IC601	OP-AMP IC	M5218AL
	Q411, 412	TRANSISTOR	2SC3311A
	Q413, 414	N-FET	2SK373
	Q431-436	TRANSISTOR	2SC3311A
	Q439, 440	TRANSISTOR	2SC3311A
	Q602, 603	DIGITAL TRANSISTOR	XDC124ES
	Q608	DIGITAL TRANSISTOR	XDC124ES
	D411-420	DIODE	1SS254
	D430	DIODE	1SS254
	D601, 602	DIODE	1SS254
COIL/TRANSFORMER			
	L451, 452	COIL 5.6MH	RTF1099
	F493, 494	MPX FILTER	RTF1059
CAPACITORS			
	C209, 210	ELECTR. CAPACITOR	CEAS4R7M50
	C211-214	AUDIO FILM CAPACITOR	CFTXA222J50
	C215, 216	ELECTR. CAPACITOR	CEASR22M50
	C217, 218	ELECTR. CAPACITOR	CEASR33M50
	C223, 224	ELECTR. CAPACITOR	CEASR33M50
	C411, 412	CERAMIC CAPACITOR	CKCYB331K50
	C413, 414	CERAMIC CAPACITOR	CKCYB471K50
	C415, 416	CERAMIC CAPACITOR	CKCYB821K50
	C421, 422	AXIAL CERAMIC CAPACITOR	CCPUSL100J50
	C431, 432	AUDIO FILM CAPACITOR	CFTXA682J50
	C419, 420	ELECTR. CAPACITOR	CEANL100M16
	C433, 434	ELECTR. CAPACITOR	CEAS330M16
	C435, 436	ELECTR. CAPACITOR	CEAS470M16
	C439, 440	ELECTR. CAPACITOR	CEAS010M50
	C441, 442	AXIAL CERAMIC CAPACITOR	CKPUYB391K50
	C475, 476	ELECTR. CAPACITOR	CEAS101M16
	C493, 494	ELECTR. CAPACITOR	CEAS100M50
	C521, 522	ELECTR. CAPACITOR	CEAS010M50
	C637	CERAMIC CAPACITOR	CKCYF473Z50
	C638	CERAMIC CAPACITOR	CCCSL101J50
	C639	ELECTR. CAPACITOR	CEAS010M50
	C640	CERAMIC CAPACITOR	CCCSL560J50

Mark	No.	Symbol & Description	Part No.
		C641 AUDIO FILM CAPACITOR	CFTXA223J50
		C644 AUDIO FILM CAPACITOR	CFTXA823J50
		C645 ELECTR. CAPACITOR	CEASR22M50
		C903, 904 ELECTR. CAPACITOR	CEAS100M50
		RESISTORS	
		R201-209 CARBON FILM RESISTOR	RD1/6PM□□□J
		R214 CARBON FILM RESISTOR	RD1/6PM□□□J
		R411-418 CARBON FILM RESISTOR	RD1/6PM□□□J
		R431-456 CARBON FILM RESISTOR	RD1/6PM□□□J
		R509、510 CARBON FILM RESISTOR	RD1/6PM□□□J
		R513, 514 CARBON FILM RESISTOR	RD1/6PM□□□J
		R521-524 CARBON FILM RESISTOR	RD1/6PM□□□J
		R527, 528 CARBON FILM RESISTOR	RCN1023
		R611-620 CARBON FILM RESISTOR	RD1/6PM□□□J
		R913, 914 CARBON FILM RESISTOR	RD1/6PM□□□J
		R940 CARBON FILM RESISTOR	RD1/6PM□□□J
		VR451-454 223(TB)	RCP1046
		OPERATE UNIT	
		SEMICONDUCTORS	
		D803, 804 DIODE	1SS254
		D841-844 LED	SEL3410G
		D846, 847 LED	REL1004
		D850 LED	REL1004
		D851, 852 LED	SEL3910D
		D860 LED	REL1004
		SWITCHES	
		S811-815 TACT SWITCH 5MM (1WD, REV, 1FF, REW, STOP)	RSG1033
		S821-825 TACT SWITCH 5MM (2FWD, REV, 2FF, REW, STOP)	RSG1033
		S849, 850 SLIDE SWITCH(1-3) (REV MODE, DOLBY)	RSH1030
		S853 TACT SWITCH 5MM(COPY)	RSG1033
		S857 TACT SWITCH 5MM(FADE/FINE)	RSG1033
		S859 TACT SWITCH 5MM(REC)	RSG1033
		S862 TACT SWITCH 5MM(×2 COPY)	RSG1033
		S865 TACT SWITCH 5MM(DISCO)	RSG1033
		S866 TACT SWITCH 5MM(ASPS)	RSG1035
		RESISTORS	
		R851, 852 CARBON FILM RESISTOR	RD1/6PM□□□J
		R527, 528 CARBON FILM RESISTOR(22K)	RCN1023
		R878-885 CARBON FILM RESISTOR	RD1/6PM□□□J
		R887 CARBON FILM RESISTOR	RD1/6PM□□□J

5. ADJUSTMENTS

5.1 MECHANICAL ADJUSTMENT

This adjustment should be performed in test mode.

* Entering the test mode.

1) Connect the system cable. (See page 38.)
2) Short–circuit JP2 and JP3.
3) In short–circuited condition, insert the AC power plug of the amplifier into the AC outlet to turn power on.
4) The deck is set to the test mode. (The APSC button lights up. (CT–P710WR only))
5) Open–circuit between JP2 and JP3.

1. Tape Speed Adjustment and Check

No.	Deck	Mode	Test tape	Adjusting points	Specifications/Ratings (playback frequency)	Remarks
1	I	Normal speed PLAY	STD-301 (3 kHz)	Play back for 1 minute and press the FF (REW) key. *1		
2		Double speed PLAY		check	6000 Hz ±600 Hz	
3		Normal speed PLAY		Release the FF (REW) key after checking.		
4	II			Play back for 1 minute and press the FF (REW) key. *1		
5		Double speed PLAY		VR803	Within ±10Hz of step 2 (deck I) check value.	
6		Normal speed PLAY		Release the FF (REW) key after checking.		
7				VR802	3000 Hz ±5 Hz	
8	I			VR801	Within ±5 Hz of step 7 (deck II) adjustment value.	

*1: As long as the FF (REW) key is pressed during playback, the unit is set to double speed mode.

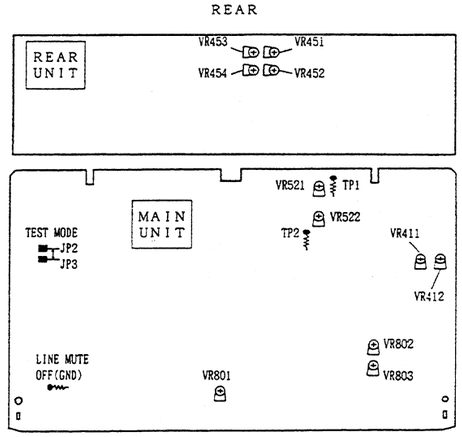


Fig. 5-1 Adjusting points

5.2 ELECTRICAL ADJUSTMENTS

Adjustment Conditions

1. The mechanical adjustments must be completed first.
2. The head must be cleaned and demagnetized.
3. Turn power on allow the deck to warm up for at least a few minutes before commencing any electrical adjustments.
4. The reference signal is 0dBv=1Vrms.
5. Connect a 50 kΩ (or between 47k to 52 kΩ) load resistance to the OUTPUT terminals.
6. Unless otherwise specified, the switches listed below are left in the positions indicated.
   DOLBY NR : OFF
   TAPE SELECTOR : NORM

Test Tapes

STD-331B	: Playback adjustments (See Fig. 5-2)
STD-630	: NORMAL blank tape
STD-620	: CrO_2 blank tape
STD-610	: METAL blank tape

List of Adjustments

Playback sections

1. Head azimuth adjustment.
2. Playback level adjustment.

Recording sections

1. Recording bias adjustment.
2. Recording level adjustment.

NOTE: This unit has an automatic tape selection feature.

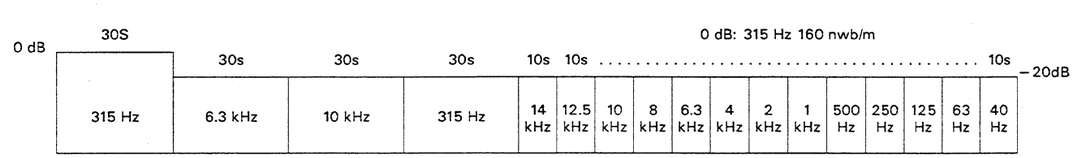


Fig. 5-2 Constants of the test tape STD-331B

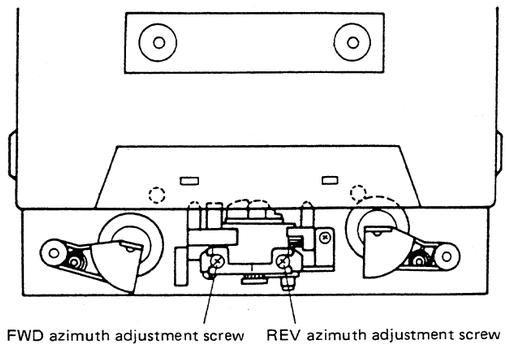


Fig. 5-3 Head azimuth adjustment

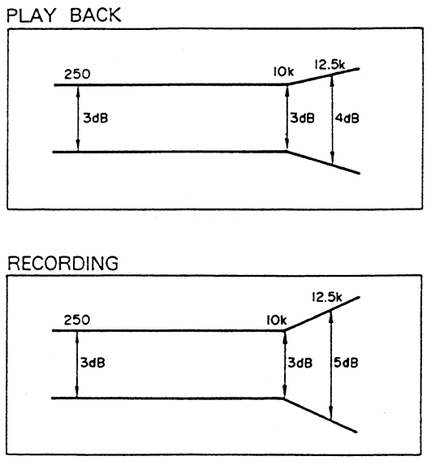


Fig. 5-4 Frequency response zone

5. RÉGLAGE

5.1 RÉGLAGES MECANIQUES

Ce réglage doit être effectué dans le mode d'essai.

* Passage au mode d'essai.

1) Brancher le câble de connexion de système. (Voir page 38.)
2) Court-circuiter JP2 et JP3.
3) En condition court-circuitée, introduire la fiche d'alimentation CA de l'amplificateur dans la sortie secteur CA pour activer l'alimentation.
4) La platine est réglée dans le mode d'essai. (La touche APSC s'allume). (CT-P710WR seulement)
5) Retirer le court-circuit entre JP2 et JP3.

1. Réglage et vérification de la vitesse de defilement de la bande

No.	Platine	Mode	Bande test	Points de réglage	Spécifications/valeurs (fréquence de lecture)	Remarques
1	I	Lecture à vitesse normale	STD-301 (3 kHz)	Reproduire pendant 1 minute et appuyer sur la touche FF (REW). *1		
2		Lecture à vitesse double		Vérifier	6000 Hz ± 600 Hz	
3				Relâcher la touche FF (REW) après la vérification.		
4	II	Lecture à vitesse normale		Reproduire pendant 1 minute et appuyer sur la touche FF (REW). *1		
5		Lecture à vitesse double		VR803	Dans la limite de ± 10 Hz de la valeur de vérification de 1' étape 2 (platine I)	
6				Relâcher la touche FF (REW) après la vérification.		
7		Lecture à vitesse normale		VR802	3000 Hz ± 5 Hz	
8	I			VR801	Dans la limite de ± 5 Hz de la valeur de réglage de 1'étape 7 (platine II).	

*1: L'unité est réglée dans le mode de vitesse double tant que la touche FF (REW) est maintenue enfoncée pendant la lecture.

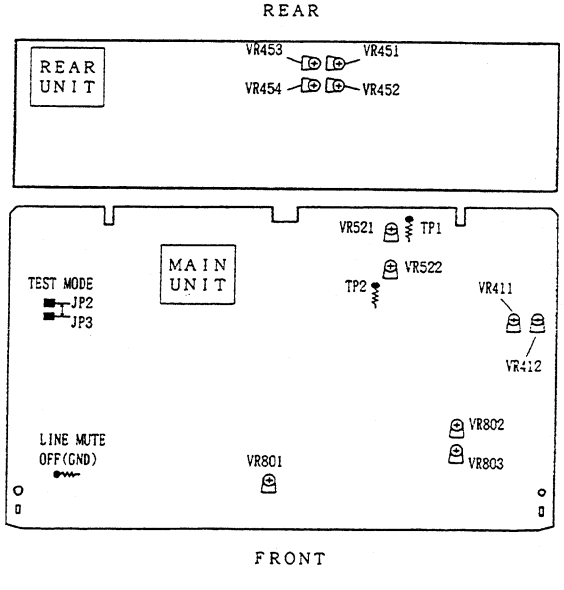


Fig. 5-1 Points de réglage

5.2 REGLAGES ELECTRIQUES

Conditions de réglage

1. Les réglages mécaniques doivent tout d'abord être terminés.
2. Les têtes doivent être nettoyées et démagnétisées.
3. Mettre la platine sous tension et la laisser chauffer pendant au moins quelques minutes avant de commencer les réglages électriques.
4. Le signal de référence est de dBv=1 Vrms.
5. Connecter une résistance de charge de 50 kΩ (tolérance 47k à 52 kΩ) aux bornes de sortie (OUTPUT).
6. Sauf indication contraire, les commutateurs ci-dessous doivent être laissés sur les positions indiquées.
   DOLBY NR : OFF
   Sélecteur de bande : NORM
   (TAPE SELECTOR)

Bandes d'essai

STD-331B : Réglages de la lecture (Voir fig. 5-2)
STD-630 : Bande vierge de type normal
STD-620 : Bande vierge de type chrome
STD-610 : Bande vierge de type métal

Liste des réglages

Sections de lecture

1. Réglage de l'azimut de la tête.
2. Réglage du niveau de lecture.

Sections d'enregistrement

1. Réglage de la polarisation d'enregistrement.
2. Réglage du niveau d'enregistrement.

REMARQUE:
Cette unité est dotée d'une sélection automatique de bande.

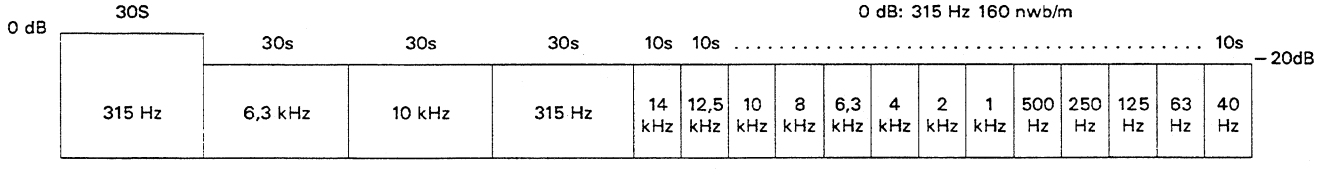


Fig. 5-2 Constantes de la bande d'essai STD-331B

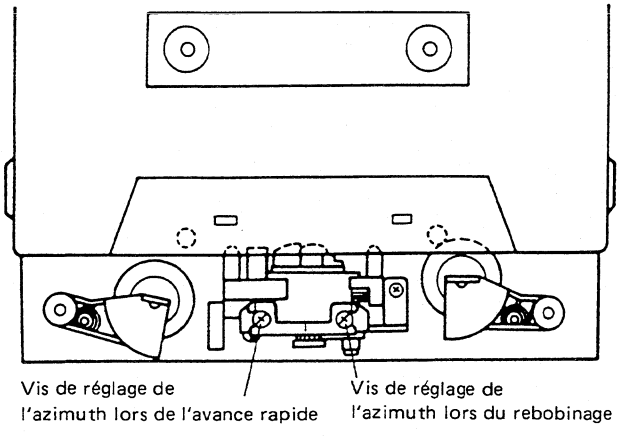


Fig. 5-3 Réglage de l'azimut de la tête

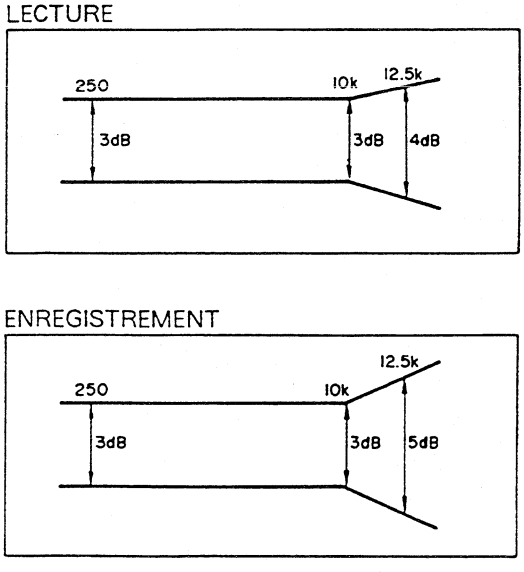


Fig. 5-4 Zone de réponse en fréquence

SECTION DE LECTURE

1. Réglage de l'azimut de la tête

• Tourner VR451, 452 (Platine I) ou VR453, 454 (Platine II) sur leur position centrale mécanique.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	PLAY	Reproduire la section 10 kHz/−20 dB de la bande d'essai STD-331B.	Vis de réglage de l'azimut de la tête. (Voir fig. 5-3)	Sortie de ligne (LINE OUT)	Niveau du signal de reproduction maximum.	
2.	STOP	Verrouiller la vis avec le verrouillage de vis après avoir terminé le réglage.				

2. Réglage du niveau de lecture

• Ce réglage détermine le niveau DOLBY NR et il doit être effectué très soigneusement.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure	Valeur de réglage	Remarques
1.	PLAY	Reproduire la section 315 Hz/0 dB de la bande d'essai STD-331B.	Platine I	VR451 (can. G) VR452 (can. D)	TP. 1 (can. G) TP. 2 (can. D)	−10,7 dBv	
			Platine II	VR453 (can. G) VR454 (can. D)			

SECTION D'ENREGISTREMENT

1. Réglage de la polarisation d'enregistrement

• Après le réglage, des précautions doivent être prises pour éviter une sous-polarisation en vérifiant le taux de distorsion.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure	Valeur de réglage	Remarques
1.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position NORM.					
2.	REC	Enregistrer les signaux 315 Hz et 6,3 kHz à un niveau d'entrée de −20 dBv et les reproduire.	—		TP. 1 (can. G) TP. 2 (can. D)	Ajuster le niveau de l'oscillateur AF de sorte que les indications TP1 et TP2 deviennent de −31,2 dBv.	
			Platine II	VR411 (can. G) VR412 (can. D)		Enregistrer, reproduire et régler de manière répétée de sorte que le niveau de lecture du signal 6,3 kHz devienne +0,5 dB ±0,5 dB lorsqu'il est comparé avec le signal 315 Hz.	

2. Réglage du niveau d'enregistrement

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage		Points de mesure	Valeur de réglage	Remarques
1.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position NORM.					
2.	REC PAUSE	Appliquer un signal de 315 Hz/0 dBv aux bornes d'entrée de ligne, charger la bande d'essai STD-630.	Sortie de l'oscillateur AF, volume de contrôle.		TP. 1 (can. G) TP. 2 (can. D)	Ajuster le niveau de l'oscillateur AF de sorte que les indications TP1 et TP2 deviennent de −11,2 dBv.	
3.	STOP	Régler le commutateur DOLBY NR sur la position ON. (DOLBY B)					
4.	REC/ PLAY	Enregistrer le signal cidessus sur la bande d'essai STD-630 et le reproduire.	Platine II	VR521 (can. G) VR522 (can. D)	TP. 1 (can. G) TP. 2 (can. D)	Enregistrer, reproduire et régler de manière répétée de sorte que le niveau du signal devienne −11,2 dB.	
5.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position CrO_2.					
6.	REC/ PLAY	Enregistrer le signal cidessus sur la bande d'essai STD-620 et le reproduire.	Vérifier		TP. 1 (can. G) TP. 2 (can. D)	−11,2 dBv ±1,5 dB	
7.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position METAL. (CT-P710WR seulement)					
8.	REC/ PLAY	Enregistrer le signal cidessus sur la bande d'essai STD-610 et le reproduire.	Vérifier		TP. 1 (can. G) TP. 2 (can. D)	−11,2 dBv ±1,5 dB	

5. AJUSTE

5.1 AJUSTE MECANICO

Este ajuste debe efectuarse en el modo de prueba.

* Cómo poner el modo de prueba.

1) Conecte el cable de conexión del sistema. (Vea la página 38.)
2) Cortocircuite JP2 y JP3.
3) Una vez cortocircuitados, enchufe el cable de alimentación del amplificador a una toma de la red para conectar la corriente.
4) La platina está puesta en el modo de prueba. (El botón APSC se enciende. (CT-P710WR solamente))
5) Retire el cortocircuito entre JP2 y JP3.

1. Ajuste y verificación de la velocidad de cinta

No.	Platina	Modo	Cinta de prueba	Puntos de ajuste	Especificaciones/valores nominales (frecuencia de reproducción)	Comentarios
1	I	PLAY (velocidad normal)	STD-301 (3 kHz)	Reproduzca durante 1 minuto y pulse la tecla FF (REW). *1		
2		PLAY (velocidad doble)		Verificar	6000 Hz ± 600 Hz	
3		PLAY (velocidad normal)		Suelte la tecla FF (REW) después de la comprobación.		
4	II			Reproduzca durante 1 minuto y pulse la tecla FF (REW). *1		
5		PLAY (velocidad doble)		VR803	Dentro de un margen de ± 10 Hz del valor de verificación del paso 2 (platina I).	
6		PLAY (velocidad normal)		Suelte la tecla FF (REW) después de la comprobación.		
7				VR802	3000 Hz ± 5 Hz	
8	I			VR801	Dentro de un margen de ± 5 Hz del valor de verificación del paso 7 (platina II).	

*1: Mientras mantenga pulsada la tecla FF (REW) durante reproducción, la unidad estará puesta en el modo de doble velocidad.

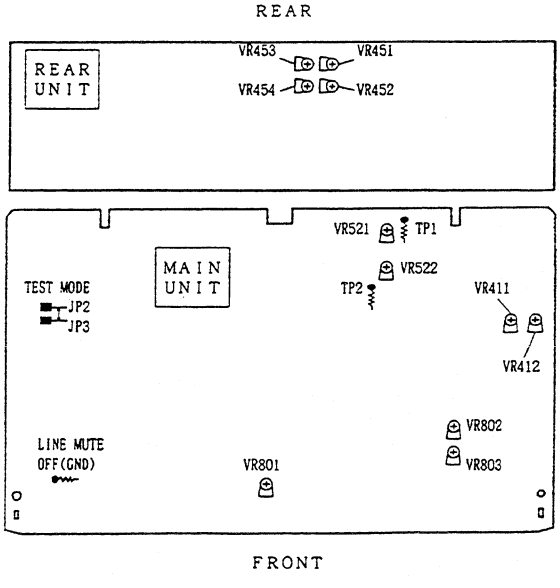


Fig. 5-1 Puntos de réglage

5.2 AJUSTES ELÉCTRICOS

Condiciones de ajuste

1. Los ajustes mecánicos deben haberse completado primero.
2. La cabeza debe estar limpia y desmagnetizada.
3. Encienda la alimentación para permitir que la platina se caliente durante unos pocos minutos por lo menos antes de realizar cualquier ajuste eléctrico.
4. La señal de referencia es de 0 dBv=1 Vrms.
5. Conecte una resistencia de 50 kΩ (o entre 47k y 52 kΩ) en los terminales OUTPUT.
6. A menos que se especifique lo contrario, los conmutadores indicados más abajo deben dejarse en las posiciones indicadas.
   DOLBY NR : OFF
   TAPE SELECTOR : NORM

Cintas de prueba

STD-331B : Ajustes de reproducción (Consulte la figura 5-2)
STD-630 : Cinta virgen NORMAL
STD-620 : Cinta virgen de CrO_2
STD-610 : Cinta virgen de METAL

Lista de ajustes

Secciones de reproducción

1. Ajuste de azimut de la cabeza
2. Ajuste del nivel de reproducción

Secciones de grabación

1. Ajuste de la polarización de grabación
2. Ajuste del nivel de grabación

NOTA:
Esta unidad posee una función de selección automática de cinta.

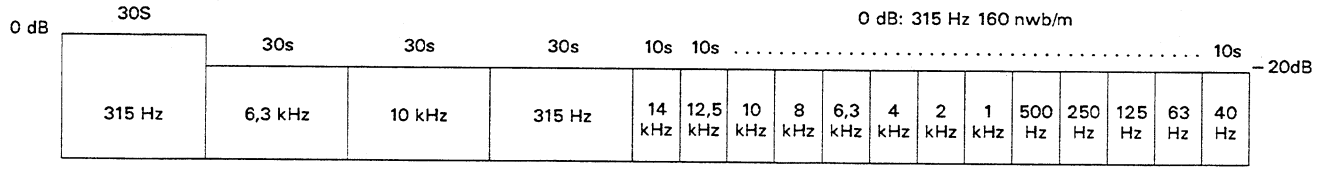


Figura 5-2 Constantes de la cinta de prueba STD-331B

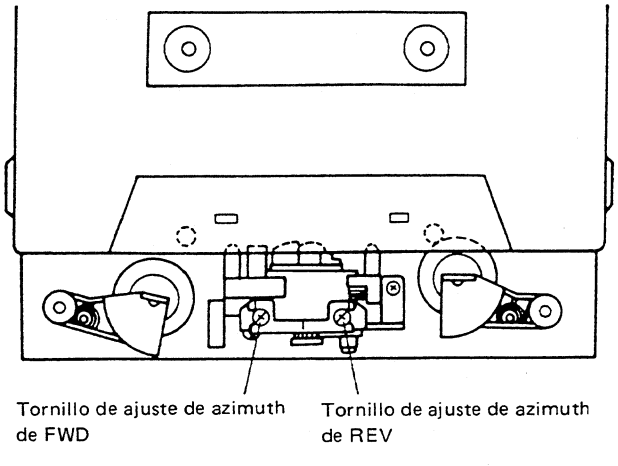


Figura 5-3 Ajuste de azimut de la cabeza

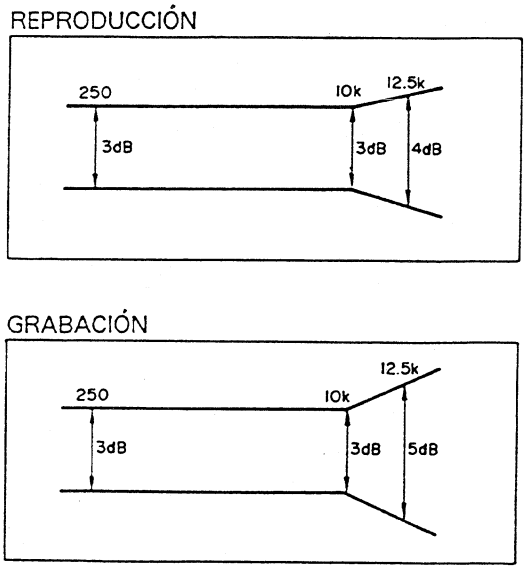


Figura 5-4 Zona de respuesta de frecuencia

SECCIÓN DE REPRODUCCIÓN

1. Ajuste del azimut de la cabeza

• Poner VR451, 452 (platina I) o VR 453, 454 (platina II) en las posiciones del centro mecánico.

N.°	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	PLAY	Reproduzca la sección de 10 kHz/−20 dB de la cinta de prueba STD-331B.	Tornillo de ajuste del azimut de la cabeza. (Vea la figura 5-3)	LINE OUT	Nivel máximo de la señal de reproducción.	
2.	STOP	Bloquee el tornillo con su cierre una vez finalizado el ajuste.				

2. Ajuste del nivel de reproducción

• Este ajuste determina el nivel DOLBY NR y debe realizarse con mucho cuidado.

N.°	Modo	Señal de entrada y cinta de prueba	Punto de ajuste		Punto de medición	Valor de ajuste	Comentarios
1.	PLAY	Produzca la parte de 315 Hz/0 dB de la cinta de prueba STD-331B.	Platina I	VR451 (Lch) VR452 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	−10,7 dBv	
			Platina II	VR453 (Lch) VR454 (Rch)			

SECCIÓN DE GRABACIÓN

1. Ajuste de polarización de grabación

• Una vez finalizado el ajuste, compruebe el porcentaje de distorsión para no obtener subpolarización.

N.°	Modo	Señal de entrada y cinta de prueba	Punto de ajuste		Punto de medición	Valor de ajuste	Comentarios
1.	STOP	Ponga el conmutador TAPE SELECTOR en la posición NORM.					
2.	REC	Grabe la señal de 315 Hz y 6,3 kHz a un nivel de entrada de −20 dBv y reprodúzcala.	—		TP. 1 (Lch) TP. 2 (Rch)	Ajuste el nivel del oscilador de AF para que las lecturas en TP1 y TP2 sean de −31,2 dBv.	
			Platina II	VR411 (Lch) VR412 (Rch)		Grabe, reproduzca y ajuste repetidamente para que el nivel de la señal de reproducción de 6,3 kHz sea de + 0,5 dB ± 0,5 dB cuando se compare con la señal de 315 Hz.	

2. Ajuste del nivel de grabación

N.°	Modo	Señal de entrada y cinta de prueba	Punto de ajuste		Punto de medición	Valor de ajuste	Comentarios
1.	STOP	Ponga el conmutador TAPE SELECTOR en la posición NORM.					
2.	REC PAUSE	Aplique una señal de 315 Hz/0 dBv a los terminales de entrada de línea e introduzca la cinta de prueba STD-630.	Salida del oscilador de AF, volumen de control.		TP. 1 (Lch) TP. 2 (Rch)	Ajuste el nivel del oscilador de AF para que las lecturas de TP1 y TP2 sean de −11,2 dBv.	
3.	STOP	Ponga el conmutador DOLBY NR en la posición ON. (DOLBY B)					
4.	REC/ PLAY	Grabe la señal de arriba en la cinta de prueba STD-630 y reprodúzcala.	Platina II	VR521 (Lch) VR522 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	Grabe, reproduzca y ajuste repetidamente para que el nivel de la señal de reproducción sea de −11,2 dB.	
5.	STOP	Ponga el conmutador TAPE SELECTOR en la posición CrO_2.					
6.	REC/ PLAY	Grabe la señal de arriba en la cinta de prueba STD-620 y reprodúzcala.	Verifique		TP. 1 (Lch) TP. 2 (Rch)	−11,2 dBv ±1,5 dB	
7.	STOP	Ponga el conmutador TAPE SELECTOR en la posición METAL. (CT-P710WR sólo)					
8.	REC/ PLAY	Grabe la señal de arriba en la cinta de prueba STD-610 y reprodúzcala.	Verifique		TP. 1 (Lch) TP. 2 (Rch)	−11,2 dBv ±1,5 dB	

6. FOR CT–P410WR/ZUC AND ZEBM TYPES

CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- Parts without part number cannot be supplied.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

The CT–P410WR/ZUC and ZEBM types are the same as the CT–P710WR/ZUCEBM type with the exception of the following sections.

Mark	Symbol & Description	Part No.			Remarks
		CT–P710WR/ ZUCEBM type	CT–P410WR/ ZUC type	CT–P410WR/ ZEBM type	
	MAIN UNIT	Non supply	Non supply	Non supply	
	REAR UNIT	Non supply	Non supply	Non supply	
	OPERATE UNIT	Non supply	Non supply	Non supply	
	Slide knob	RAC1527	RAC1575	RAC1575	
	Eject knob (L)	RAC1528	RAC1576	RAC1576	
	Eject knob (R)	RAC1529	RAC1577	RAC1577	
	Front panel	RAH1873	RAH1874	RAH1874	
	Door panel (R)	RAH1809	RAH1772	RAH1772	
	Connector assembly 15P (Red)	RKP1375	RKP1386	RKP1386	
	Operation button assembly	RXA1358	RXA1397	RXA1397	
	Door panel (L) assembly	RXX1359	RXX1344	RXX1344	
	Packing case	RHF1020	RHF1019	RHG1242	
	Remote control unit	.....	RPX1048	RPX1048	
	Caution card	.....	.....	RRN1001	

MAIN UNIT

The main unit of CT–P410WR/ZUC and ZEBM types are the same as the main unit of CT–P710WR/ZUCEBM type with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		CT–P710WR/ ZUCEBM type	CT–P410WR/ ZUC and ZEBM types	
	IC801	PD3183A	PD3177A	
	Q497–Q502, Q527, Q528, Q570, Q828, Q829	XDC124ES	.....	
	Q583	2SC3243	.....	
	D580	1SS198	.....	
	C543, C544	CFTXA473J50	.....	
	R507, R508	RD1/6PM513J	RD1/6PM163J	
	R511, R512	RD1/6PM243J	.....	
	R521, R522	RD1/6PM123J	.....	
	R523, R524	RD1/6PM622J	.....	
	R553, R554	RD1/6PM182J	.....	
	R555, R556	RD1/6PM202J	.....	
	R569	RD1/6PM220J	.....	
	R585	RD1/6PM102J	.....	
	R816	RD1/6PM222J	.....	
	R834	RCN1019	RD1/6PM392J	
	R836	RCN1029	RD1/6PM561J	

REAR UNIT

The rear unit of CT–P410WR/ZUC and ZEBM types are the same as the rear unit of CT–P710WR/ZUCEBM type with the exception of the following sections.

Mark	Symbol & Description	Part No.		Remarks
		CT–P710WR/ ZUCEBM type	CT–P410WR/ ZUC and ZEBM types	
	Q602, Q603, Q608	XDC124ES	.....	
	C639	CEAS010M50	CEASR22M50	
	C641	CFTXA223J50	CEASR10M50	
	C644	CFTXA823J50	.....	
	C645	CEASR22M50	.....	
	R612	RD1/6PM273J	RD1/6PM122J	
	R619	RD1/6PM223J	.....	
	R620	RD1/6PM132J	.....	

OPERATE UNIT

The operate unit of CT–P410WR/ZUC and ZEBM types are the same as the operate unit of CT–P710WR/ZUCEBM type with the exception of the following sections.

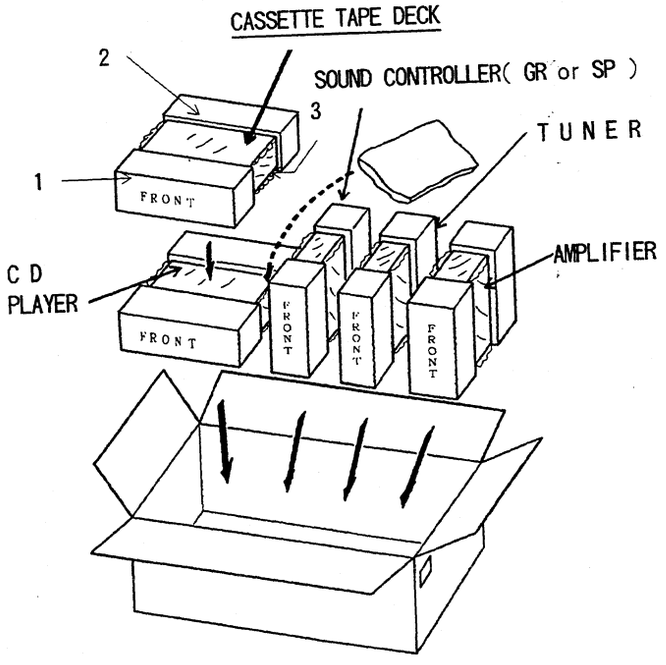
Mark	Symbol & Description	Part No.		Remarks
		CT–P710WR/ ZUCEBM type	CT–P410WR/ ZUC and ZEBM types	
	D847, D850	REL1004	.....	
	D851, D852	SEL3910DLC05	.....	
	D860	REL1004	.....	
	R851, R852	RD1/6PM101J	.....	
	R878, R879, R885	RD1/6PM331J	.....	
	S866 Tact switch	RSG1035	.....	

7. PACKING

● CT-P710WR TYPE

Parts List

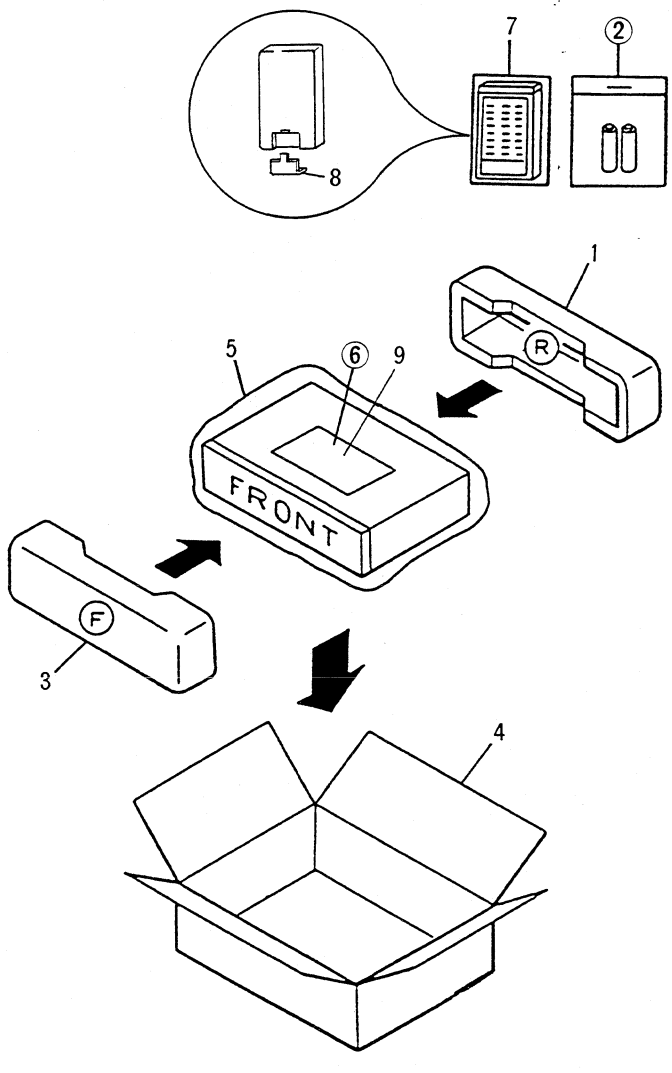
Mark	No.	Part No.	Description
	1	RHA1050	FRONT PAD
	2	RHA1051	REAR PAD
	3	Z23 – 022	SHEET



● CT–P410WR TYPE

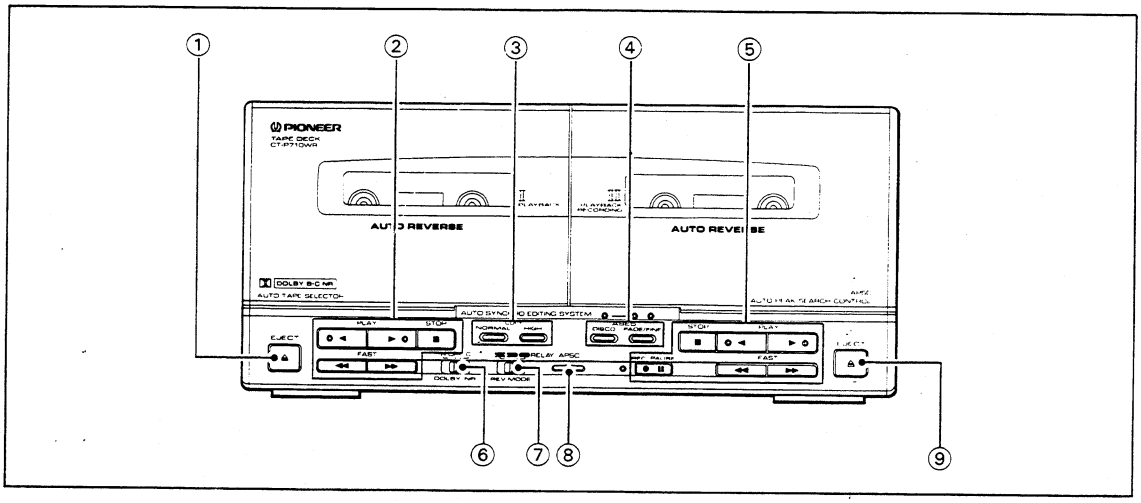
Parts List

Mark	No.	Part No.	Description
	1	RHA1051	REAR PAD
	2		DRY CELL BATTERY (R6P, "AA")
	3	RHA1050	FRONT PAD
	4	RHF1019 (ZUC type) RHG1242 (ZEBM type)	PACKING CASE
	5	Z23 – 022	SHEET
	6		MANUAL
	7	RPX1048	REMOTE CONTROL UNIT
	8	AZA1302	BATTERY COVER
	9	RRN1001 (ZEBM type only)	CAUTION CARD



8. PANEL FACILITIES

STEREO DOUBLE CASSETTE DECK: CT-P710WR



① Deck I EJECT button (⏏)

② Deck I operation buttons

▶**PLAY (FWD):** For playing back a tape in the forward mode.

◀**PLAY (REV):** For playing back a tape in the reverse mode.

■ **STOP:** For stopping the tape.

▶▶**FAST:** Fast forward in forward mode, rewind in reverse mode.

◀◀**FAST:** Rewind in forward mode, fast forward in reverse mode.

③ COPY buttons

Used for tape copying.

NORMAL: Copying from the Deck I tape to the Deck II tape at normal recording/playback speed.

HIGH: Copying at about twice normal tape speed. (Copies can be made in about half the NORMAL time.)

④ ASES (DISCO, FADE/FINE) buttons

Used for automatically recording a CD on cassette tape. (See page 49)

⑤ Deck II operation buttons

▶**PLAY (FWD):** For playing back a tape in the forward mode.

◀**PLAY (REV):** For playing back a tape in the reverse mode.

■ **STOP:** For stopping the tape.

▶▶**FAST:** Fast forward in forward mode, rewind in reverse mode.

◀◀**FAST:** Rewind in forward mode, fast forward in reverse mode.

● ❚❚**REC PAUSE:**

When this button is pressed once, the unit will be set to the recording pause mode; when the PLAY button (▶) is subsequently pressed, recording will begin. If pressed during recording, the unit will enter the recording pause mode.

⑥ DOLBY* NR switch (B/OFF/C)

Set this switch to B or C before recording with the built-in Dolby NR Systems and for playback of tapes which have been recorded using the Dolby NR systems.

- It is recommended that tapes recorded with Dolby B type NR or Dolby C type NR be so marked on the label. This will help prevent incorrect setting of the noise reduction switch during playback.

*

- *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.*
- *"DOLBY" and the double-D symbol ◻◻ are trademarks of Dolby Laboratories Licensing Corporation.*

⑦ REV (reverse) MODE switch

Use this to select tape travel direction during play and record.

⇄ : One-sided play and record.

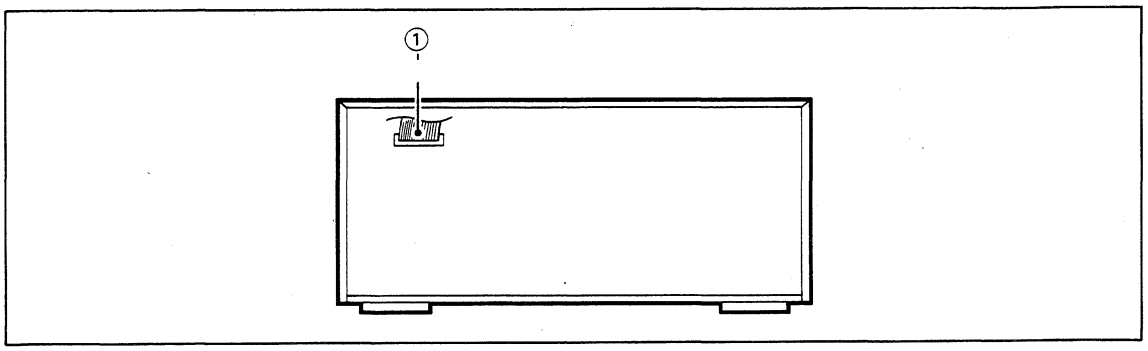
⇉ : This enables auto reverse recording and auto reverse play. If you start with the tape running in reverse, only reverse play and recording are possible.

↻ **RELAY:** This enables auto reverse recording and auto repeat play of up to 32 times. If you start with the tape running in reverse (◀) during recording, recording is only possible in that direction. When the tape ends during reverse play (◀), it counts as one repetition.

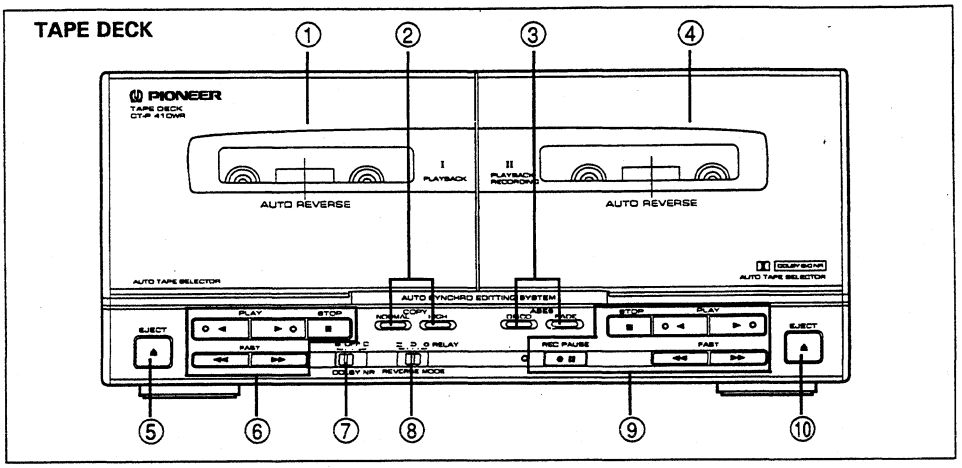
⑧ APSC (Auto Peak Search Control) button

Press this button when you wish to automatically set the recording level to match the peak level of the recording source. This is the simplest way to achieve the optimum dynamic range in your recordings.

⑨ Deck II EJECT button (⏏)



① **CASSETTE DECK system cable (red)**
Connect to the TAPE DECK jack (red) of the sound field processor (or sound image controller).



TAPE DECK

① DECK I cassette door
② COPY buttons (NORMAL/HIGH)
③ ASES (Auto Synchro Editing System) buttons (DISCO/FADE)
④ DECK II cassette door
⑤ DECK I EJECT button (⏏)
⑥ DECK I operation buttons (PLAY ◀ ▶, STOP ■ , FAST ◀◀ ▶▶)
⑦ DOLBY* NR switch
⑧ REVERSE MODE switch (⇄, ⊃, ↻ RELAY)
⑨ DECK II operation buttons (PLAY ◀ ▶, STOP ■, FAST ◀◀ ▶▶, REC PAUSE ● ❚❚)
⑩ DECK II EJECT button (⏏)

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9. SPECIFICATIONS

DOUBLE CASSETTE DECK: CT-P710WR

Tracks ..... 4-track, 2-channel stereo
Playback head ..... Hard permaloy (× 1)
Recording/Playback head ..... Hard permaloy (× 1)
Erasing head ..... Ferrite (× 1)
Motor ..... DC servo 2-speed motor (× 2)
Wow and flutter ..... 0.09% (WRMS)
Rewind/Fast forward time ..... about 95 seconds (with C-60 tape)
Frequency response:
Metal tape ..... 35 Hz—16,000 Hz ±6 dB (recorded at −20 dB, EIAJ).
CrO_2 tape ..... 35 Hz—15,000 Hz ±6 dB (recorded at −20 dB, EIAJ).
Normal tape ..... 35 Hz—14,000 Hz ±6 dB (recorded at −20 dB, EIAJ).
S/N ratio ..... 56 dB (peak recording level, audible compensation)
- With Dolby NR type B on ..... 10 dB improvement at 5 kHz.
- With Dolby NR type C on ..... 19 dB improvement at 5 kHz.

Other

Dimensions ..... 260 (W) × 116.5 (H) × 238 (D) mm
10-1/4 (W) × 4-9/16 (H) × 9-3/8 (D) in
Weight ..... 2.8 kg (6 lb 3 oz.)

TAPE DECK: CT-P410WR

Systems ..... 4 track, 2-channel stereo
Heads ..... "Hard Permalloy" recording/playback head x 1
"Hard Permalloy" playback head x 1
"Ferrite" erasing head x 1
Motor ..... DC servo 2 speed motor x 2
Wow and Flutter ..... No more than 0.09 % (WRMS)
Fast Winding Time ..... Approximately 95 seconds (C-60 tape)
Frequency Response (-20 dB recording):
CrO_2 tape ..... 35 Hz to 15,000 Hz ±6 dB
Normal tape ..... 35 Hz to 14,000 Hz ±6 dB
Signal-to-Noise Ratio
Dolby NR OFF ..... 56 dB
Noise Reduction Effect
Dolby B type NR ON ..... More than 10 dB (at 5 kHz)
Dolby C type NR ON ..... More than 19 dB (at 5 kHz)
Dimensions ..... 260 (W) x 116.5 (H) x 287 (D) mm
10-4/16 (W) x 4-9/16 (H) x 11-5/16 (D) in
Weight (Without package) ..... 2.9 kg (1 lbs 6 oz)